SPENCER SUPPORTS in MODERN MEDICAL PRACTICE

23 ILLUSTRATED CASE ABSTRACTS

PRESENTED TO

Dr. _____

By _____

Dealer in Spencer Supports

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We present here clinical evidence of the value of Spencer Supports in the treatment of conditions of abdomen, back and breasts. This booklet is *not* a catalogue because each Spencer Support is created on special order for the man, woman, or child who will wear it. The purpose of this booklet is to demonstrate the wide variety of conditions for which the medical profession prescribes Spencer Individual Designing. (Complete list on p. 33.)

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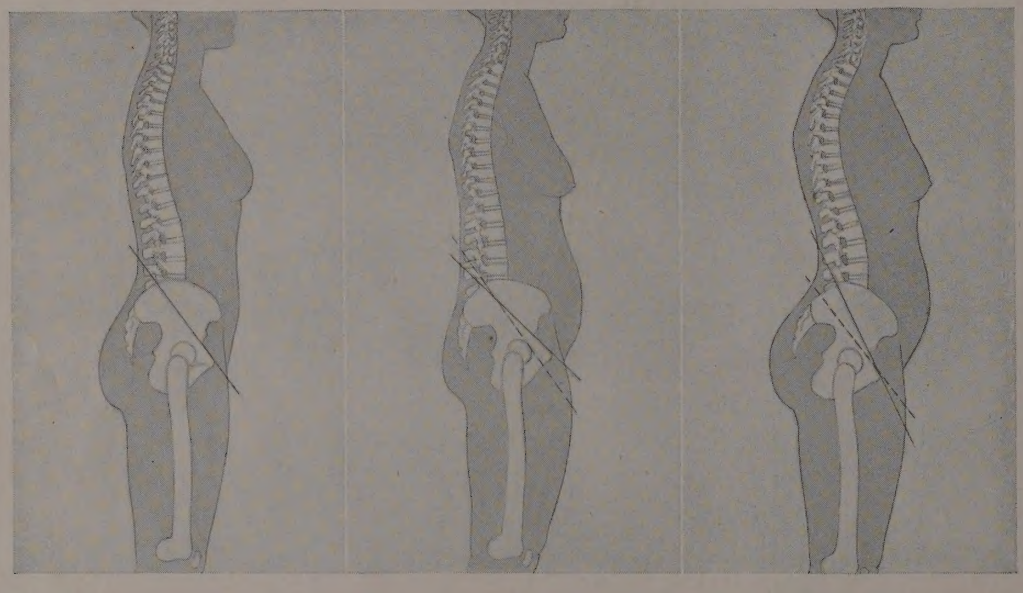
BACK SUPPORTS

IN PREVENTIVE MEDICINE

Posture is the key to the use of the body. As Hansson[1] has shown, posture "is directly related to the comfort, mechanical efficiency, and physiological functioning of the individual." When we improve posture, we improve body mechanics, we restore more nearly normal *form* and *function*. Thus, a consideration of *support* for the human body must include a consideration of posture.

Orthopedics is concerned with *prevention* as well as *correction*. Since "good body poise is essential to physical fitness"[1] the improvement of faulty posture and the maintenance of good posture is of primary importance to every physician. "In this way, the long train of deleterious effects of organic displacements and faulty pressures, which are in large measure directly traceable to postural malformations, is prevented."[3]



Drawing A: Good posture. Chest is up and forward; abdomen is in. Back curves not exaggerated. This posture indicates good mechanical use of the body.

Drawing B: In this fatigue type posture, the chest is flatter. The abdomen is relaxed, "slumpy." Back curves are flattened. Indicates poor use of the body.

Drawing C: In this lordotic type posture, the abdomen is relaxed and forward, with typical "sway-back" curves. Indicates poor mechanical use of the body.

In Drawings B and C we see a misalignment of the human machine. Goldthwait[2] referred to the misalignment in lordotic posture as follows:

"If the viscera are displaced or if the pelvis is tipped forward markedly so that the spinal nerves are compressed and their function is disturbed, there is as definite a deformity as there is in a twisted foot."

In the recognition and correction of these postural "deformities"—mild as well as extreme—the physician is relying increasingly on proper support, especially boned support which is "the best form of support for posture cases."[3, 10]

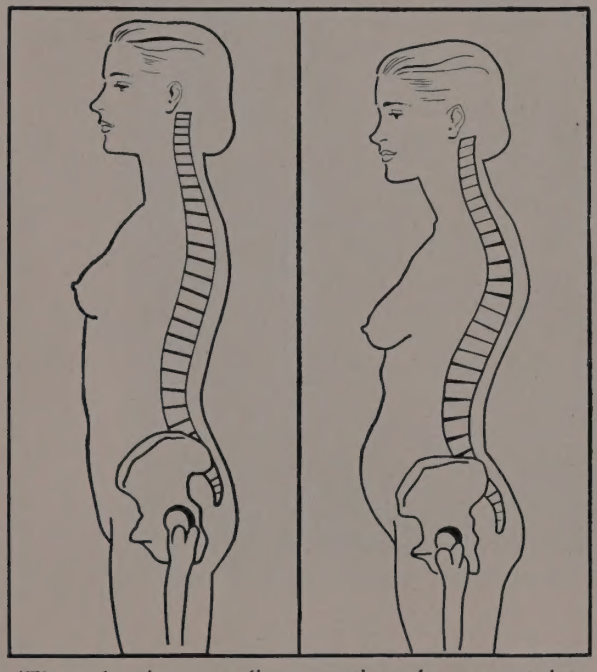
However, we are not *born* to good posture or good body use; we acquire it through the establishment of good postural habits. As one authority[1] expressed it: " . . . good body mechanics is not a part of the neuromuscular inheritance of the individual; it is the result of conditioned reflexes."

In developing these desired conditioned reflexes, the physician finds it expedient to employ support, temporarily or permanently as needed. Postural improvement attained by a proper support is *immediate*; it serves as a constant reminder to the

wearer of his goal in retraining muscles and body attitudes.

And it is of great importance to remember that proper support does NOT cause muscle atrophy; on the contrary, proper support permits the correct use of the body including muscle exercise and activity.[4, 16] However, to be effective, a support must be not only of correct design but must also *hold its shape.* A support that stretches or otherwise loses its shape loses its effectiveness.

Not only to the neurosurgeon and the orthopedist, but to all practitioners, there is one particularly interesting aspect of posture in preventive medicine—the relationship of faulty posture to the syndrome of the disabled spinal discs.[5, 6, 8, 10]



(These drawings are diagrammatic and exaggerated to show more clearly the pressure on discs resulting from faulty posture.)

Jones[5] presents the claim that "the shearing stress of the pelvis tilted forward in faulty posture, combined with the 'hollow lumbar spine' may eventually wear away the intervertebral disc, and that it is within reason that when body weight is carried on top of a sacrum that slumps forward, the constant pressure so exerted on the posterior part of the disc . . . may result in degeneration and possibly be a factor in producing disintegrations that later allow protrusion." This would indicate an etiological relationship in faulty posture to deterioration of these discs.

Lewin[6] has shown that "the tilt of the pelvis, which is controlled partly by the abdominal muscles but largely by the muscles which control the position of the pelvis with relation to the femurs, causes variation in the compensatory curves of the spine, and postural strains result. . ."

Improvement of posture and maintenance of good posture is, then, one of the important orthopedic aims in preventive treatment. Proper support is a valuable aid in realizing that aim.

IN CONSERVATIVE TREATMENT

Guri[7] has stated that one of the most frequent problems the orthopedist faces is that of deciding on conservative vs. surgical measures in back cases.

Evidence in medical literature indicates the importance of at least trial conservative treatment in most cases. Such treatment usually includes support for the back,[6, 10] and Raney[8] found that "only a very small number of cases resist nature's healing forces and require surgical treatment."

IN POSTOPERATIVE TREATMENT

Proper support of the back is often indicated following fusion or other spinal surgery. The purpose of the support is to restrict or to immobilize motion and to protect the surgical area; to assist the patient "through his muscles, ligaments, and especially his brain and nerve cells to gain the right or best use of his body;" to assist in the correct position of the pelvis which is the structural base of the body; to help prevent the usual sag of the body backward from the hips by pushing the dorsal spine forward and helping to elevate the ribs.[2]

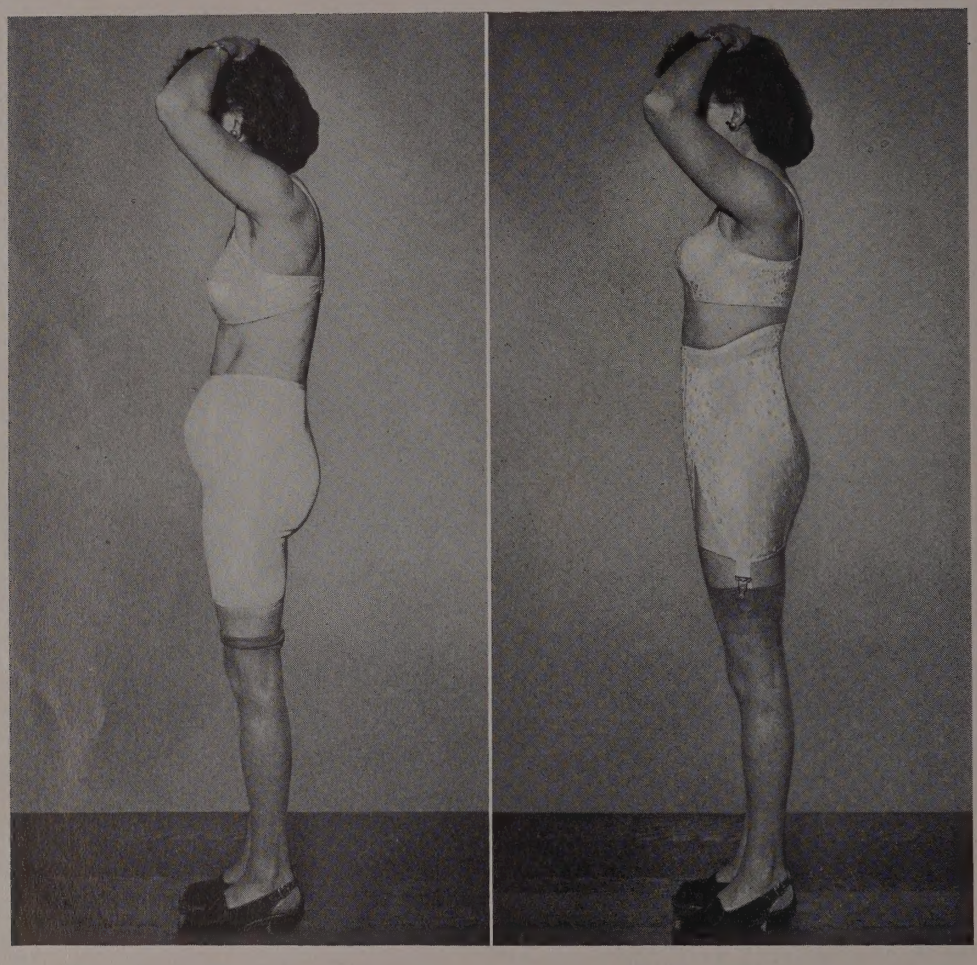
Since proper support of the back and restriction or immobilization of the affected parts is often essential to the success of both conservative and post-surgical treatment, the selection of the support of choice is an important one. Physicians are finding Spencer Supports therapeutically more effective because:

Each Spencer Support is *individually designed, cut and made* at our New Haven plant—*after* a description of the patient's body and posture have been recorded and detailed measurements taken. Spencers are designed for the patient's body—not as it is—but as it should be.

And because each Spencer is individually designed for each patient, it can be—and is—*guaranteed not to lose its shape.*

The illustrated case abstracts which follow indicate the versatility and effectiveness of Spencer Individual Designing.

FATIGUE POSTURE



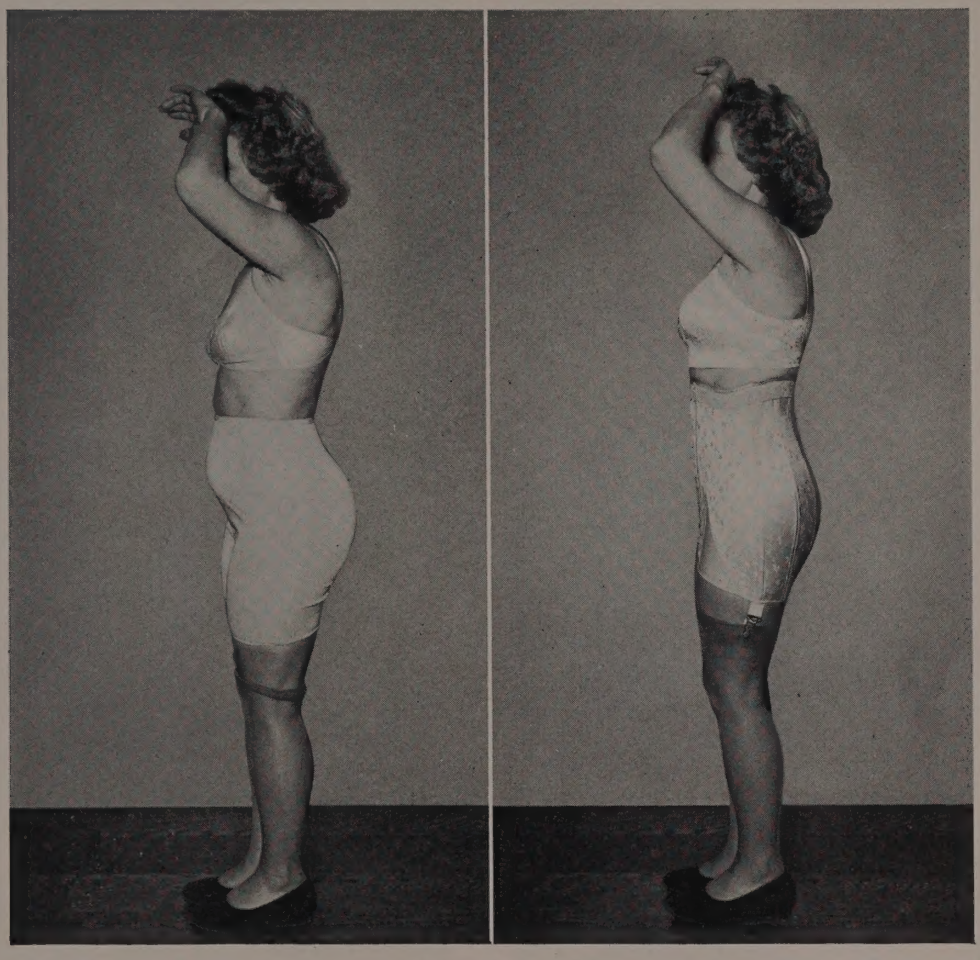
The patient pictured here represents a postural problem familiar to every physician—the type of physical constitution that is slender, flat chested, with poor muscular development. Goldthwait[2] has pointed out that in this slender type, there is often a marked sag of the abdominal organs, ptosis of the intestinal tract, a slowing and stagnation of both the pulmonary and the venous circulations "which may account for the familiar symptoms of cold, clammy hands and feet and varicosities in the veins."

This patient is 47 years of age, para 1. Spencer was prescribed to improve posture and body mechanics, to allay fatigue, to lift the ptosed abdominal organs into proper position to improve functioning. A Spencer Abdominal Spring Pad* is incorporated in the support. Although this Spencer Support is lightweight, with light boning, note the postural improvement attained. Note also the support to the small but ptosed breasts provided by the Spencer Breast Support.

In treatment of postural conditions and impaired function due to poor posture and poor body mechanics, the physician will find Spencer Individually Designed Supports a valuable adjuvant to treatment. *Immediate* improvement in posture and body mechanics is attained following application of a Spencer and the establishment of better postural habits is thereby accelerated. Since Spencer Supports permit and encourage muscle activity, muscle tone is also improved.

**Patented*

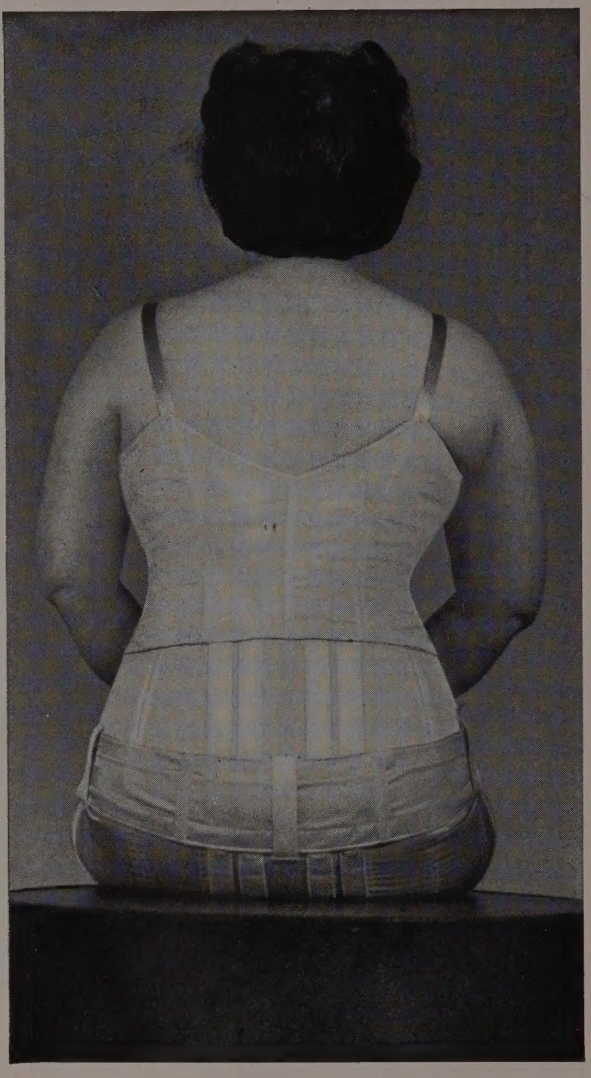
LORDOTIC POSTURE



In the lordotic patient shown above, the curvature of the spinal column with a forward convexity is readily apparent. The compensatory malpositioning of the abdominal organs is also apparent. The patient is 42 years of age, para 2. Her postural condition is of many years' duration; thus, "the change in the shape of the bones due to poor posture and faulty body mechanics does not allow complete correction of the faulty curves; (but) no matter how bad the curves are or how extensive the changes in shape, it is always possible to improve body mechanics and to prevent the further damage caused by it."[2] (This fact is illustrated in the more extreme case abstracts which follow.)

The Spencer prescribed for this patient—like all Spencer Supports was individually designed, cut, and made at our New Haven plant based on detailed measurements and body and posture descriptions. The design of this support was created to meet the patient's particular and individual needs. The accurate correlation of abdominal and back support serves to modify the posture. From the improved posture and the modifications of the lordotic curve, better body mechanics is induced. The pull of supporting the abdomen is placed on the pelvis, not on the spine at or above the lumbar region. This particular support is made of lightweight material, with 2 stiff steels (not rigid), 1 each side of spine.

PROTRUDED INTERVERTEBRAL DISC

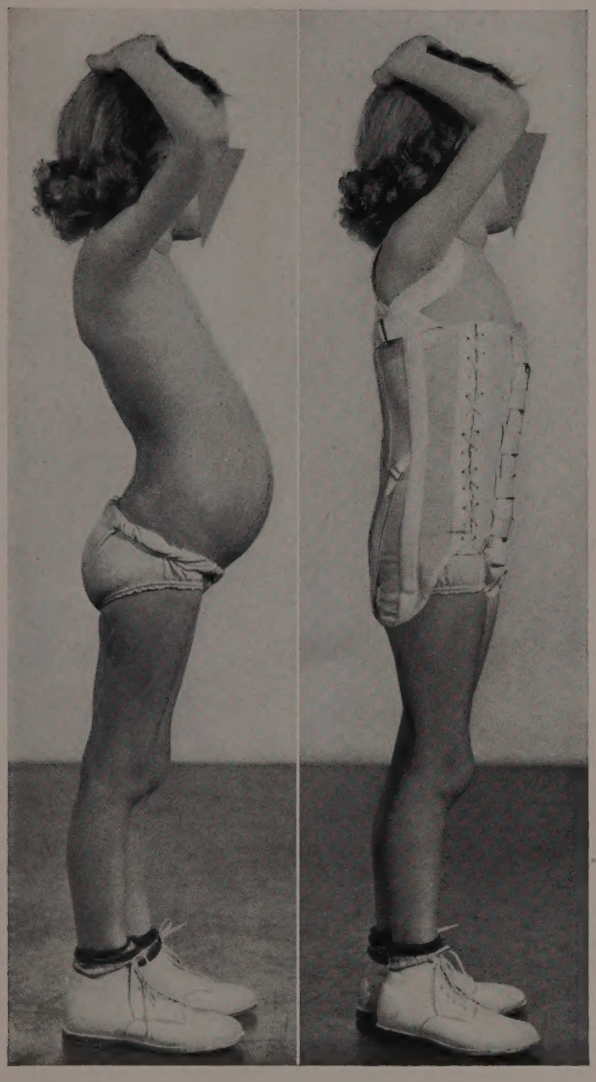


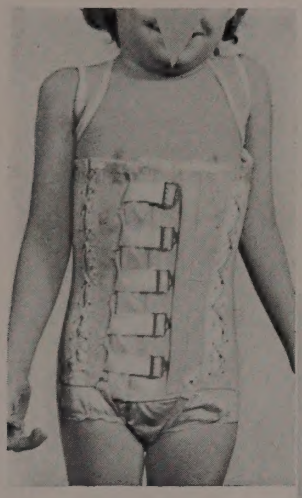
This patient, para 1, is 44 years of age, 5 feet 4 inches in height, weight 160 lbs.

Following pregnancy in 1939, the patient complained of severe low-back pain. Six months after parturition, she was confined to bed with acute pain in the low back. She experienced severe postural imbalance with muscle spasms pulling the trunk of the body and the left hip out of line. A Spencer Support with rigid steels was prescribed by the attending orthopedist as part of preoperative treatment. Disc resection and spinal fusion was performed October, 1945. The support was applied the twelfth day following surgery and for approximately five months was worn constantly night and day. The postural imbalance was corrected but the patient was advised to continue to wear permanently for day wear a Spencer Support with rigid steels to insure the maintenance of that correction.

On prescription of the orthopedist, the Spencer Support as shown above was designed with high back, rigid steels, and an outside pelvic binder to limit motion of the pelvis and the lumbar area. Although the support is comfortable enough for the patient to sleep in, the degree of rigidity maintained is such that the patient is able to lead a very active life and carry out all her home duties.

POLIOMYELITIS





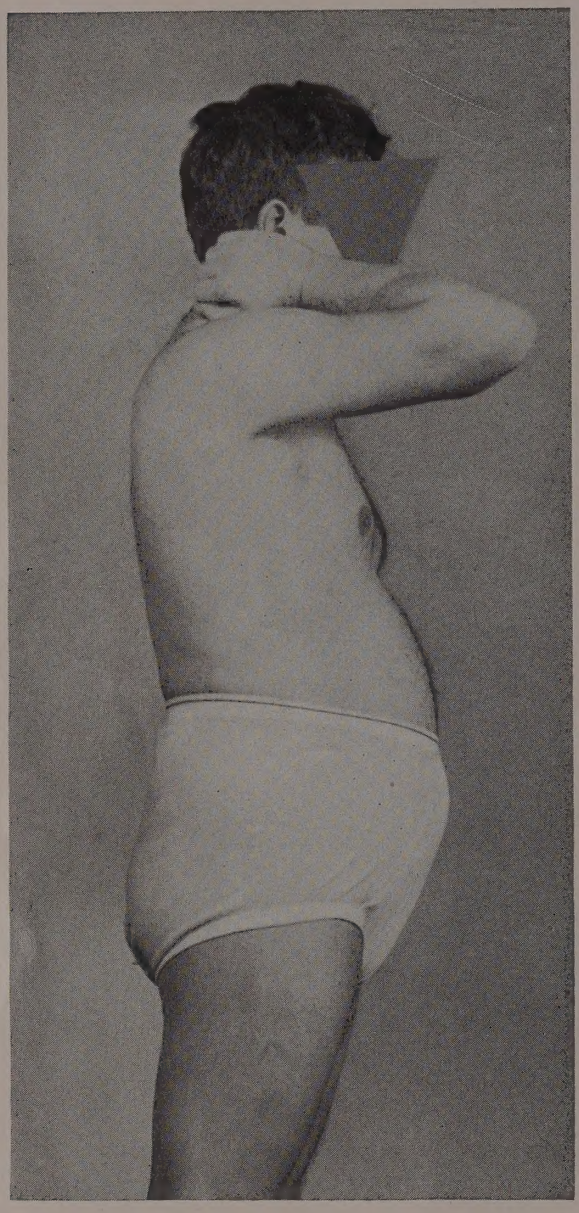
This female child, age 6 years, suffered onset of acute poliomyelitis, September, 1946. In March, 1947, she was flexible, but had extreme weakness in all four extremities and back. In July, 1947, it was found that strength had increased in all extremities and she was able to crawl on her hands and knees. At this time a Spencer Support was applied in order to protect the weak back. In August, 1947, it was discovered that the left leg was ½ inch shorter than the right and examination in November of that year indicated a beginning left dorsal scoliosis and all weight bearing was discontinued.

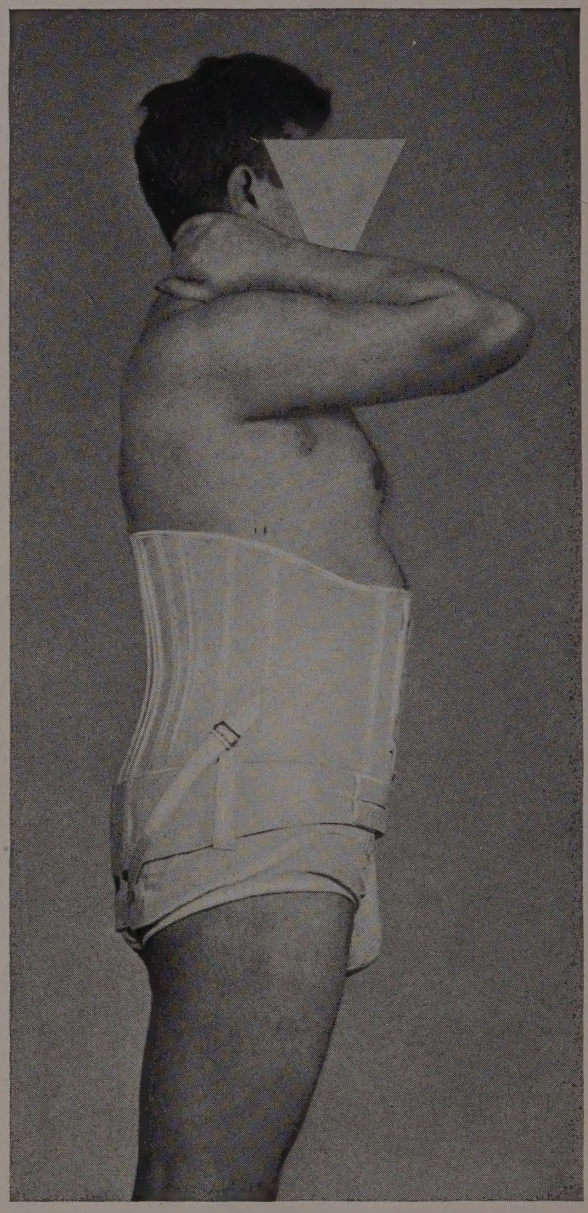
At the time these photographs were made, (February, 1948), the child had been under treatment at her home for several months during which time she was freely ambulatory because of lack of supervision. The Spencer Support shown above was applied shortly before she returned to the hospital for further physiotherapy. The support has elastic gores top and bottom to assist in respiration and freedom of the lower extremities. Four rigid steels—two each side of spine—maintain a prescribed degree of rigidity to prevent further development of deformity. All rigid steel casings are plush covered to protect the sensitive skin. The front lacers shown on each side of the support allow for necessary changes in the growing body.

The orthopedist included in this Spinal Support a large Spencer Abdominal Spring Pad (see p. 31) in an effort to develop better tone in the weakened abdominal muscles through giving buoyancy to movement.

The correction of the postural line obtained by the Spencer is evident in the photographs above. Improvement in body mechanics is similarly satisfactory.

LUMBOSACRAL SPRAIN





This patient is 32 years of age, 5 feet 7 inches in height, weight approximately 180 lbs. A Spencer Support with four rigid steels and an outside pelvic binder was prescribed for relief of acute lumbosacral sprain.

Symptoms were first noticed in July, 1947, following a fall on rocks. The symptoms disappeared for a period and then reappeared in October, 1947, with acute discomfort. The patient was referred to an orthopedist in January, 1948, who, following X-rays and other examinations, diagnosed the condition as acute lumbosacral sprain. The patient's Spencer Support was applied January, 1948, and surgery was delayed until the effectiveness of the support in relief of symptoms could be demonstrated. The patient states that he obtains comfort and relief from symptoms while wearing the support. In the photographs above note the improvement in the postural line.

POSTPARTUM LOW-BACK PAIN

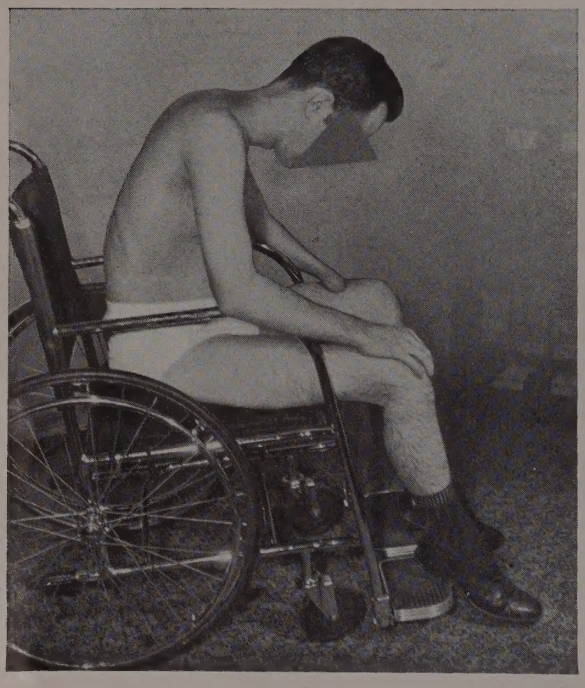
The patient is 29 years of age, para 2. Patient suffered disabling back pain three months after the birth of her second child, August, 1947, and was confined to bed because of painful symptoms. Examination revealed an injury to the sacroiliac joint (possibly caused by a childhood injury to the sacrum) with a developing arthritic condition.

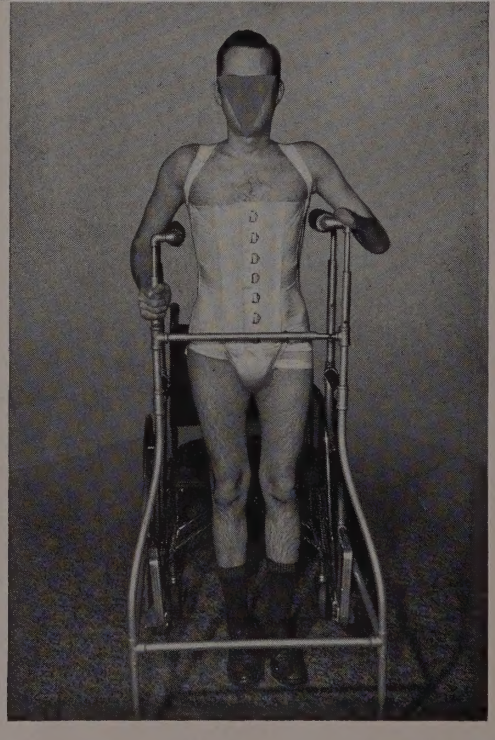
A Spencer Support, designed with a high back and four rigid steels, and a Spencer Breast Support were applied immediately to relieve discomfort, to improve posture and body mechanics, and to immobilize the sacroiliac joint.

As soon as the support was applied, the patient experienced relief of symptoms. At the time these photographs were made, she had worn her Spencer Support for three months during which time there had been no recurrence of painful symptoms. However, she states that when she attempts to move about without the support she is uncomfortable and cannot carry out her duties.

The Spencer Breast Support uplifts the patient's ptosed breasts into normal position and gives added support to the diaphragm and shoulders.

TUMOR OF THE SPINE





This paraplegic patient, age 25, developed symptoms in 1943 of stiffness in the neck and pain in the right hip. The condition was diagnosed as a tumor inside the spinal cord (glio blastoma multiform). The site of the tumor: C 4, 5 and 6.

The first laminectomy was performed 1943. A second operation was performed March, 1946, with little improvement noted. X-ray therapy was given in April 1946, September 1946, and December 1946.

A Spencer Support with 1 rigid steel and 1 stiff steel each side of spine was applied October, 1946, which enabled the patient to use his special walker for exercise. Abdominal muscles are paralyzed and a special Spencer Abdominal Spring Pad incorporated in his support has been helpful in assisting respiration and relieving symptoms of constipation and indigestion.

Prognosis is poor but the patient is comfortable as long as he wears the support and does not attempt to be too active. Because he is unable to sit erect without high support to his back and uplift for his diaphragm and chest, Spencer designers created the support (as shown above) to come up well over the chest to enable the patient to sit up with more comfort. Elastic gores at top sides assist in respiration. The support has six rigid steels. Special hip pads protect the prominent hip bones.

TUBERCULOSIS OF THE SPINE

This patient is 40 years of age, para 10.

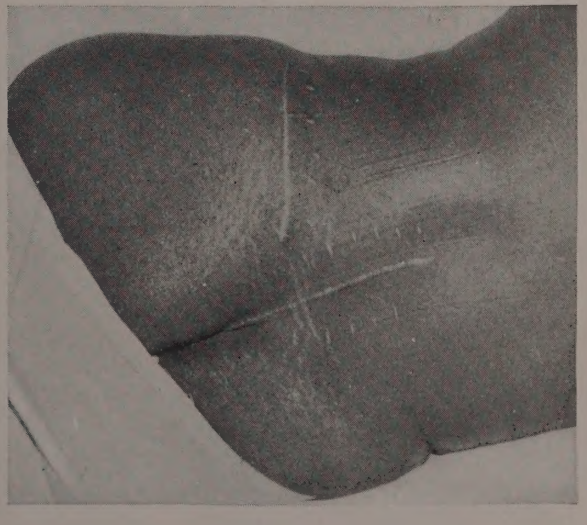
A diagnosis of tuberculosis of the fourth and fifth lumbar spine was made in April, 1946. Following treatment in recumbency in a posterior half-shell cast, spinal fusion of the third, fourth, and fifth lumbar spine was performed June, 1947, using a full thickness medial graft of the left tibia.

She was again treated in recumbency in a posterior half-shell cast until November, 1947. At that time, X-ray examination of the dorsal lumbar spine showed that the massive graft had taken excellently and she was ambulated following application of a Spencer Support.

The patient's condition was complicated, however, by the fact that she had a large fibroid tumor for which surgery was delayed because of the other physical condition. Because of this tumor, support was prescribed to meet unusual medical indications.

As shown in the photograph at left, her Spencer Support was designed with high back and orthopedic shoulder straps, and with four rigid steels to support and restrict motion of the back. An inner abdominal supporting section was incorporated in the support to protect the tumor and avoid compression.

The support obtained was considered adequate by her physician. Prognosis excellent.



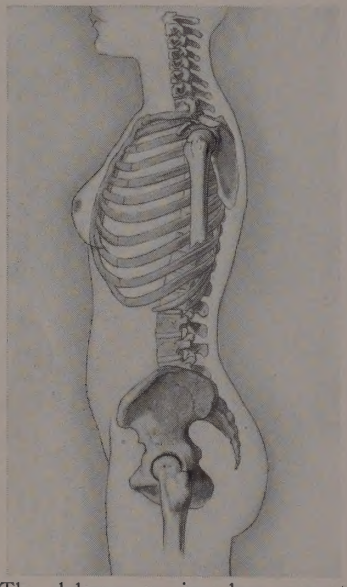
Photographs made under hospital supervision.

ABDOMINAL SUPPORTS

Medical literature on the subject of posture as related to visceral functions is voluminous — because the abdominal viscera, more than any other parts of the body, exemplify the fact that *proper function* depends on *proper posture.*

Wolf[11] described the contents of the abdominal cavity "as hanging dependently from the spine like a coat on a hook" and pointed out that proper support helps to restore more nearly normal function.

The indications for the use of posture improving supports which provide abdominal support are widely recognized.[2, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21]



The abdomen receives less support from the skeleton than any other part of the body.

IN VISCEROPTOSIS, Spiesman[12] found that "incorrect posture, poor body mechanics, and visceroptosis run hand in hand." Active treatment includes abdominal support and correction of postural habits.

IN NEPHROPTOSIS, conservative treatment includes the application of support.[15] A loose kidney is almost always accompanied by faulty posture . . . "by relieving the downward pressure the normal position of the kidneys can be restored and the protecting fat replaced."[2, 16, 17]

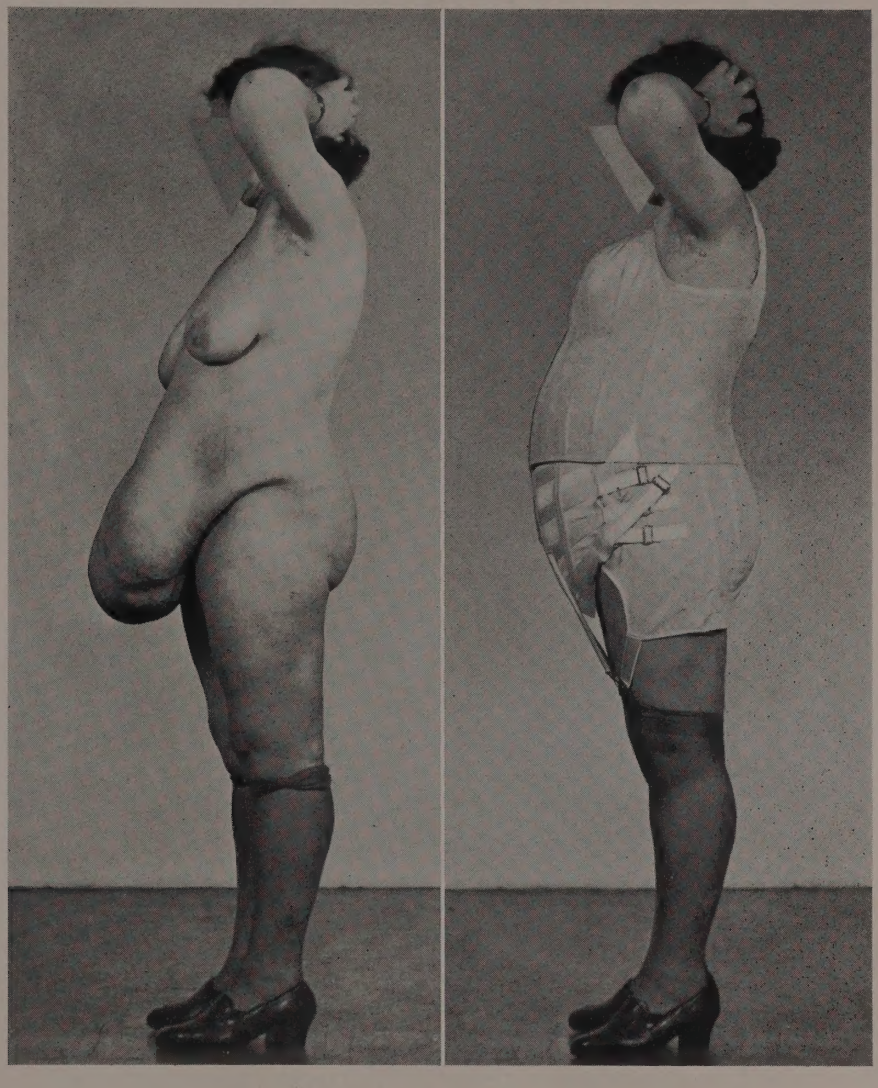
IN OBESITY, lack of abdominal muscle tone leads to dilation of the blood vessels in the digestive organs and favors the formation of fat.[18] Proper abdominal support tends to protect and restore normal functioning, and redistribution of weight often relieves incapacitating discomfort.[20]

IN CARDIAC DISEASE, Goldthwait[2] found that chronic cardiac symptoms rarely developed in the presence of good body mechanics, and that when symptoms had developed, correction of faulty postural habits helped greatly "in reducing the peripheral load, in lessening cardiac strain, and in increasing the patient's usefulness."

IN GASTRIC ULCER, Cook[21] finds that ulcer results primarily "from pressure upon the ulcer-bearing areas of the stomach and duodenum between the liver and the spine." In women, he considers the prevention of ulcer as chiefly dependent "upon the avoidance of *improper* corseting."

(Left): X-ray showing position of patient's stomach before a Spencer Support was designed for her. (Right): X-ray of same patient showing position of stomach after her Spencer Support was adjusted. (Note: X-rays taken under the supervision of a member of the National Gastroenterological Association.)

VENTRAL HERNIA



This patient, para 2, age 49, height 5 feet, weight 135 lbs., developed a large umbilical hernia in 1928 following the birth of her second child. Surgery was carried out in 1939. The condition was relieved until 1942 when a ventral hernia developed.

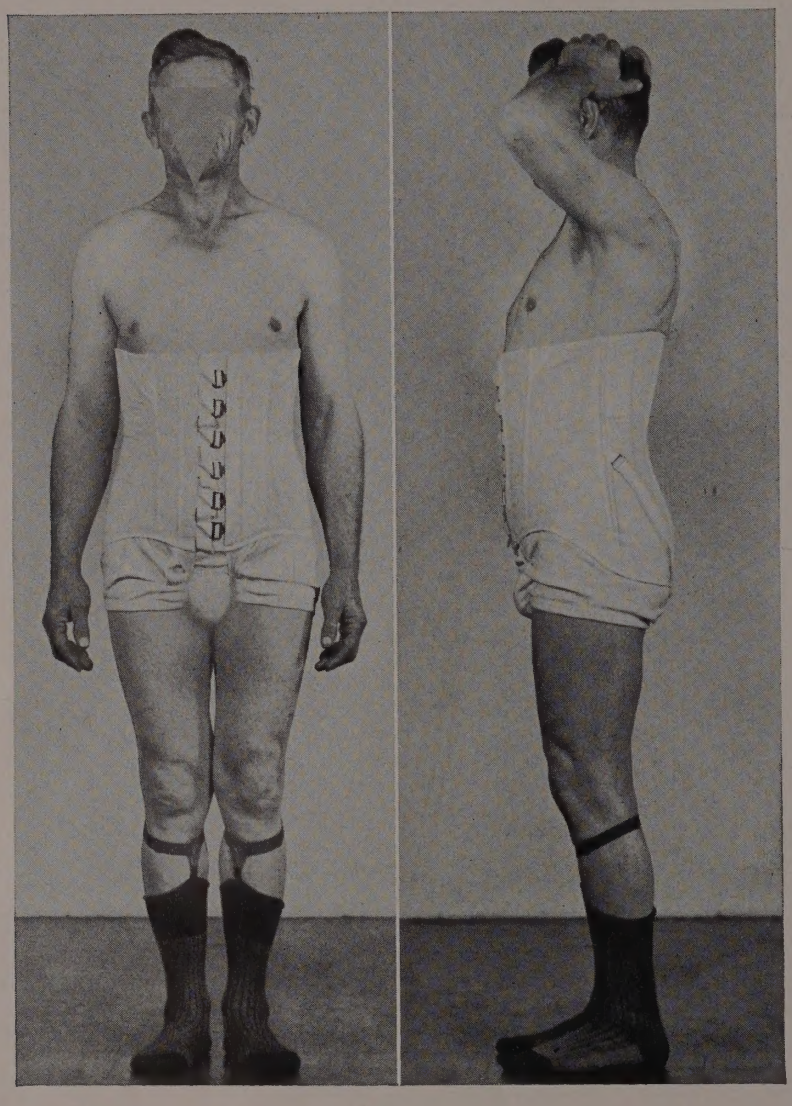
Examination in January, 1947, revealed this hernia to be inoperable and a Spencer Support was recommended for continuous wear. After wearing the support 6 months, the hernia itself was considerably reduced and the loss of body bloat was such that the patient's dress size was reduced from size 52 to size 44.

This patient's support was designed to control and support the abdominal wall and to help return the organs to normal position within the abdominal cavity.

In the photographs above, note the correction provided by Spencer, the support to the abdominal wall, the raised diaphragm, the improved postural lines, the uplift to the ptosed breasts. The proper support provided by her Spencers enables this woman to lead a normal, active life and the cosmetic result is of great psychological value to her.

Spencer is suggested to the physician as the support of choice for hernia when surgery is delayed or contraindicated.

FASCIOMYOSITIS
WITH ARTHRITIS OF THE SPINE



The patient is 55 years of age, a former railroad worker now retired because of disability. Patient has a history of mild back trouble since early childhood. For a 15 year period he complained of pain in the left kidney area but was unable to obtain relief. The consulting urologist found that surgery was contraindicated.

The patient was referred to an orthopedist and a diagnosis was made of fasciomyositis complicated by arthritis of the spine. A Spencer Support with four rigid steels was prescribed in November, 1947. The patient was measured for the support in the hospital, and the support was applied upon his becoming ambulatory.

The patient states that with the support he experienced relief of the pain in the area of the left kidney; that he lost the tired feeling in the legs, and felt improvement in the sense of well-being. Under treatment, he is able to move about freely and do certain chores on the farm where he lives. He states that when he takes off his support for laundering or other purposes that the pain comes back in the region of the kidney and he suffers other symptoms. He finds his Spencer Support comfortable, even for sleeping.

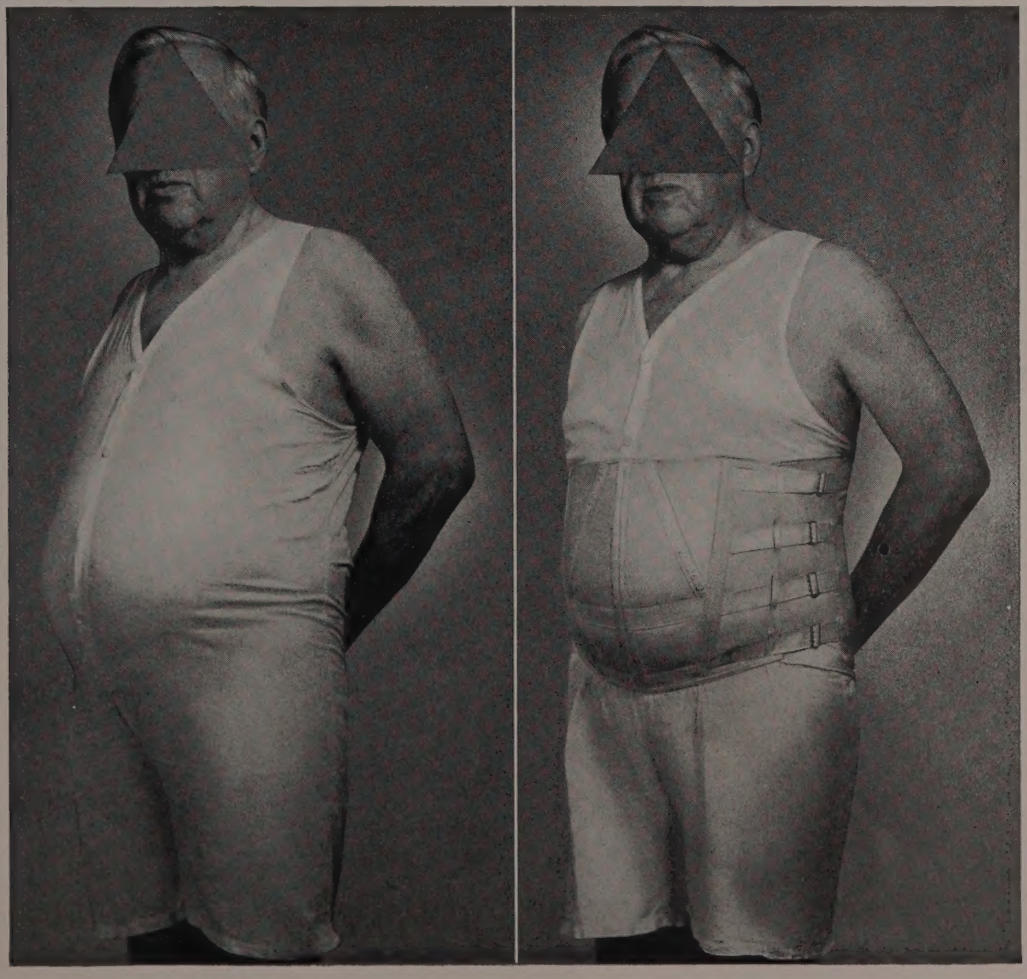
POSTURAL SYNDROME

The patient shown below presented symptoms which have been described as the postural syndrome "which begins with obesity and results in distortion of the spinal curves."[32] Because the abdominal muscles no longer sustain the dragging weight of the obese abdomen, abdominal support is indicated as adjunct to treatment to supplement the abdominal musculature.

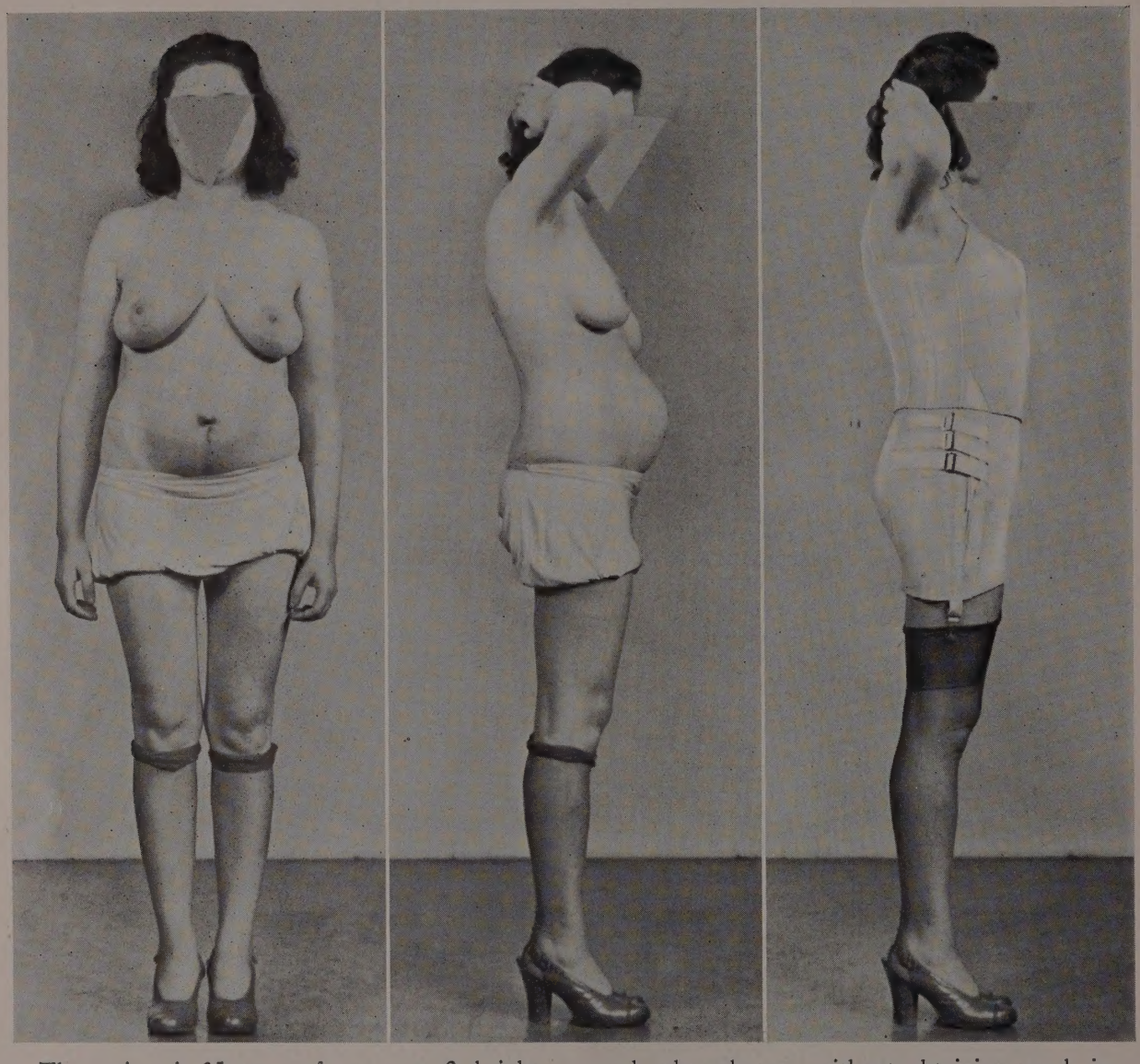
It has been shown that a protuberant abdomen results in increasingly poor posture and poor body mechanics and thereby develops "a long line of symptoms."[2] Kerr[32] suggested that at the proper time postural exercises may be instituted but considered it unreasonable to make that attempt "until the size of the protuberant abdomen has greatly diminished (through application of support)." Alexander and Kountz[34] experimented with abdominal support to lift the diaphragm to its expiratory position and maintain adequate intra-abdominal pressure and found that "the average increase in the vital capacity of the lungs had been 39 per cent."

The Spencer Support pictured below was individually designed for this patient to help restore normal weight distribution; to regain the normal line of gravity, and thereby to straighten spinal curves. The elastic gores at top front sides were inserted to assist in inspiration and expiration, thus helping to increase tidal air.

Spencer Individually Designed Supports fully meet such medical indications as these.



SEPARATION–RECTUS ABDOMINIS MUSCLES



The patient is 35 years of age, para 2, height 5 feet ½ inch, and weight approximately 112 lbs.

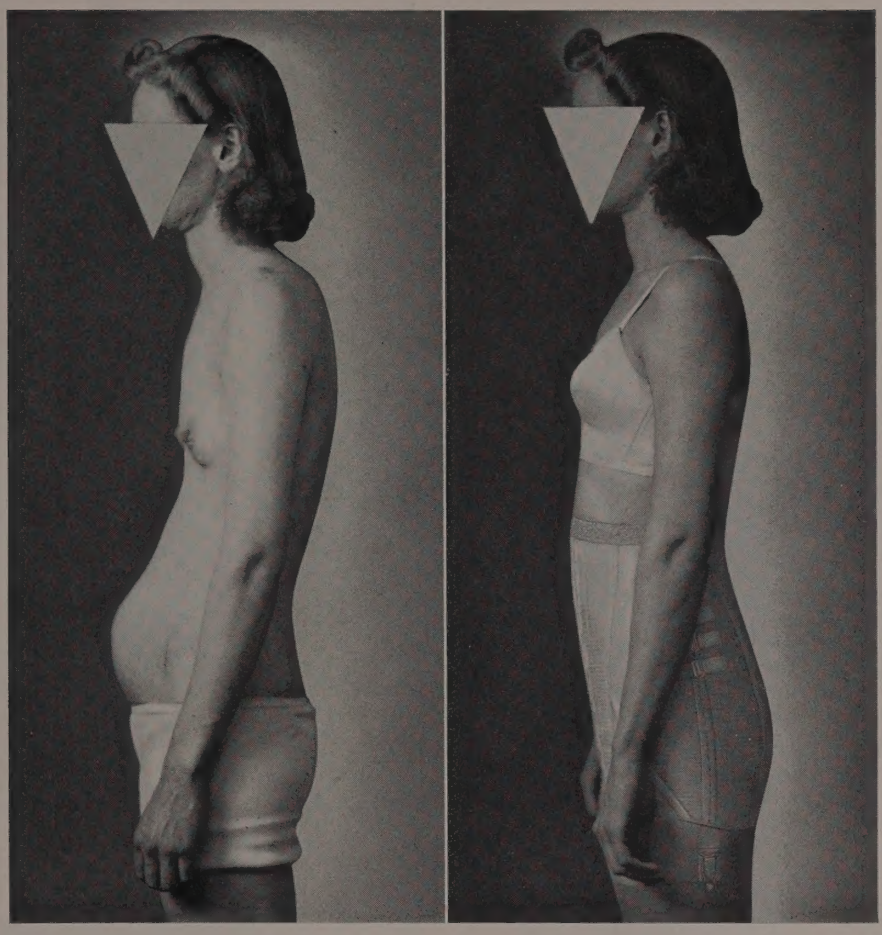
Examination in January, 1948, revealed complete separation of the rectus abdominis muscles which followed the delivery of two children, in 1943 and 1945, by Caesarean section.

The patient stated that she noticed the enlarging abdomen and weakened muscles approximately six weeks following the second Caesarean section. She underwent a long series of exercises and other therapy without obtaining much improvement.

Surgery is contraindicated at the present time since she may have more children. For that reason, the doctor prescribed a Spencer Support to serve as a substitute abdominal wall, to improve and protect posture, and to relieve fatigue. A Spencer Breast Support was also prescribed for the small but ptosed breasts.

The patient states that she finds great comfort and relief with her Spencer Supports.

VISCEROPTOSIS



It has been established that ptosis alone, uncomplicated by organic disease, is "capable of producing no end of chronic annoying symptoms."[12]

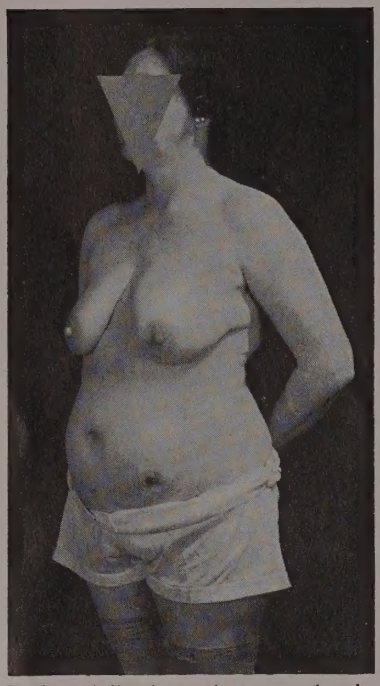
There is also evidence to show the relation between faulty posture and malpositioning of organs, indicating that ptosed abdominal organs should be returned to their normal position *synchronously* with the straightening of postural lines. Because this relationship between poor posture and visceroptosis is clearly established, the use of posture improving support with abdominal uplift for this condition is generally accepted.[14]

The patient shown above in her habitual standing position without support, presents the familiar narrow, thin body, the forward head, the drooped shoulders, the flat chest, the ptosed abdomen.

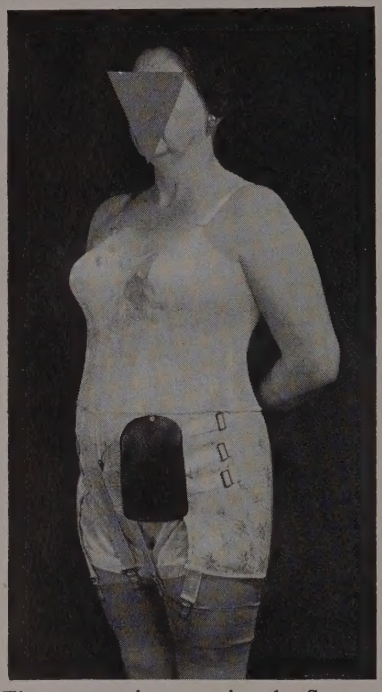
The Spencer Support and Breast Support shown on the patient at right were prescribed to improve posture and body mechanics synchronously with return to normal position of the abdominal organs. The Spencer Breast Support lifts the ptosed breasts into proper position. An inner abdominal section of the support, made of non-elastic material and easily adjusted from the outside without disturbing the corset, provides the extra abdominal uplift required for this patient's weakened abdominal wall. The precise correlation of abdominal and back support modifies the unfavorable pelvic tilt, thereby assuring improvement of posture and body mechanics.

In adjusting all abdominal supports, patients are instructed by the Spencer corsetiere to put on the support before arising while in a supine position so as to move the abdominal fat and viscera upward rather than to compress them in the lower abdomen.

FOLLOWING COLOSTOMY

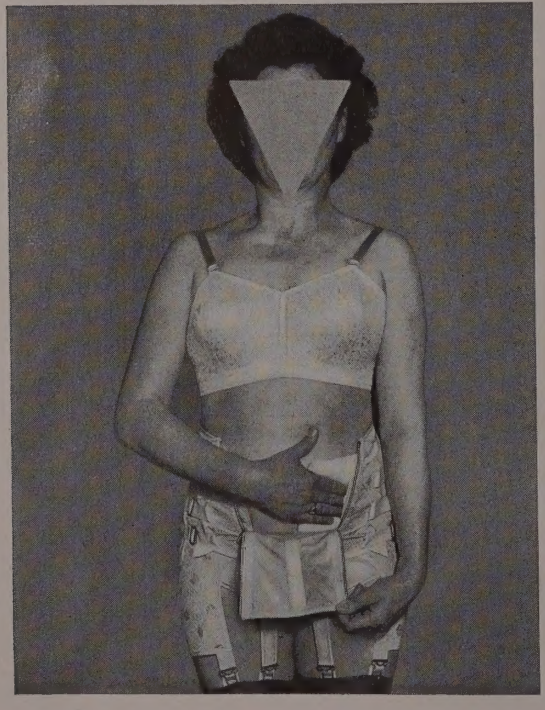


Patient following colostomy, showing the site of opening into the colon. Note the patient's faulty posture and prolapsed breasts. An individually designed Spencer Support and Spencer Breast Support were prescribed as adjuvant to postoperative treatment.



The same patient wearing the Spencer colostomy support with colostomy pouch and the Spencer Breast Support which were designed especially to meet her individual needs. Note improved posture and the proper support provided for the breasts.

Continued wear was prescribed to provide postural improvement, abdominal uplift, and proper support of breasts. The same patient wearing her Spencer Support designed without colostomy pouch, after irrigations had been regulated to make the pouch unnecessary.



A NEW COLOSTOMY SUPPORT

Pictured at left is a colostomy support illustrating a new development by Spencer Designers.

Note the abdominal section which may be instantly opened by means of zipper fasteners at each side. This is a convenience appreciated by the patient when absorbent pads are to be changed.

This abdominal section is lined with moisture-proof material which is easily cleaned and which prevents soiling of the support and the outer clothing. This feature has proved to be of great psychological importance to the patient.

BREAST SUPPORTS

It is generally agreed that proper support of the breasts is an important element in the management of breast conditions.[22, 23, 24, 25, 36, 37]

DURING ADOLESCENCE AND PUBERTY, proper breast support helps to protect the developing breasts, especially during physical exercises and sports associated with this period. The breasts become pendulous when the thin layers of connective tissue is broken down; proper breast support helps to retain healthy tissues and normal contours.

DURING PREGNANCY AND LACTATION, the breast undergoes great stress and strain and proper breast supports are an important part of the hygiene of this period. "More than at any other time of a woman's life . . . the breasts should be properly supported."[22] In fact, many physicians prescribe support for both day and night wear to protect the breasts from crushing or discomfort.

Note picture below of the Spencer Sleeping Breast Support individually designed for the woman shown.

FOR PENDULOUS BREASTS, support is particularly important. Lack of proper support is an important element in mammary prolapse[23, 36, 37] and one investigator[24] found improper breast support "to be a contributing factor in abnormal involution . . . and in such subjective symptoms as pain, drag and tenderness caused by it."

Seabold[24] has pointed out that the pendulous breast may exert pressure on the diaphragm, heart and lungs . . . "which may lead to scoliosis of the spine and a faulty stooping posture." It has been shown[25] that proper support relieves this pressure as well as non-pathological symptoms associated with many breast conditions.

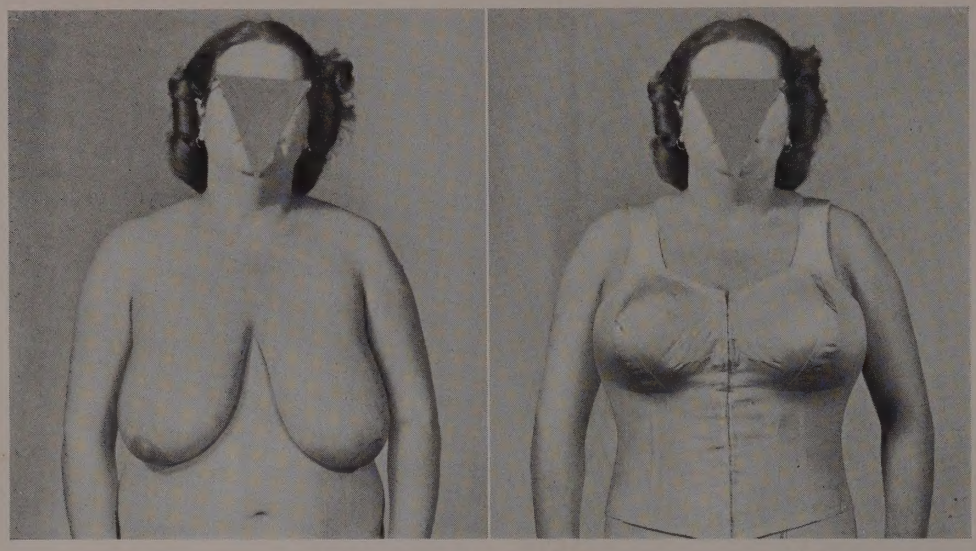
FOLLOWING MASTECTOMY, support, plus a proper prosthetic appliance, is essential. A satisfactory appliance should provide: "unilateral prosthetic correction; the simulation not only of the breast tissue but also of the pectoral muscles on the side of the operation; and a match of the natural to the artificial breast as to size, shape, and site of nipple."[22] A Spencer Breast Form—because it is individually designed to the patient's exact requirements — provides these precise benefits.

Although the artificial reconstruction of the missing breast is initially a cosmetic problem, its importance to the patient, from both the psychological and cosmetic viewpoints, cannot be overestimated. The application of the proper breast support for the remaining breast and prosthetic appliance *early after surgery* helps to maintain good posture and prevent the "droop" of arm and shoulder over the site of the operation.

Spencer Breast Forms are available following amputation of one or both breasts. Breast Forms are also individually designed for women with underdeveloped or asymmetrical breasts.

SPENCER BREAST SUPPORTS provide proper support because they are individually designed for each patient to meet medical indications; they support the breasts without constriction; they are designed to permit the natural flow of fluids through the breasts; they help improve posture. In the illustrated case abstracts which follow, we present evidence of their indications and effectiveness.

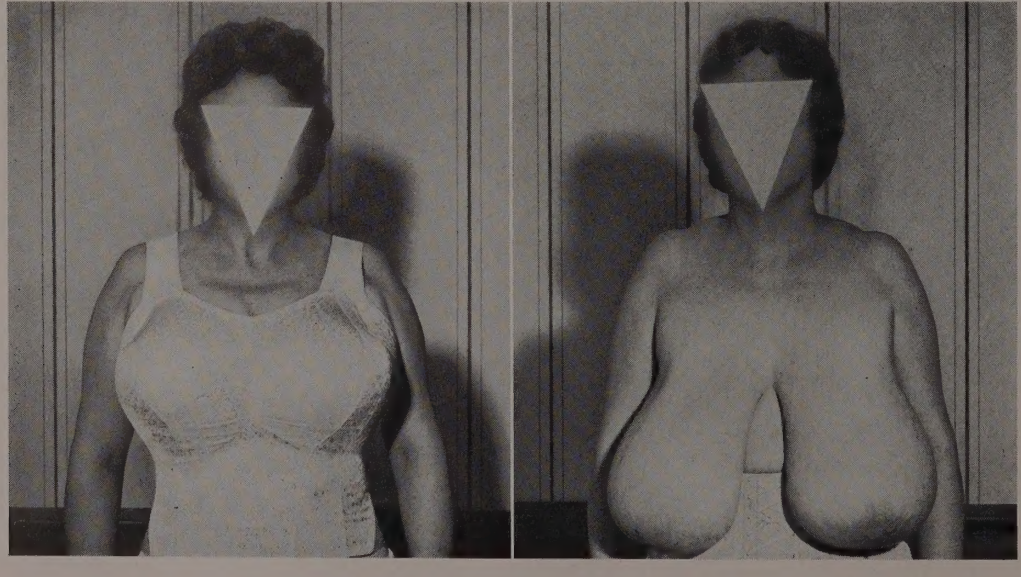
PENDULOUS BREASTS



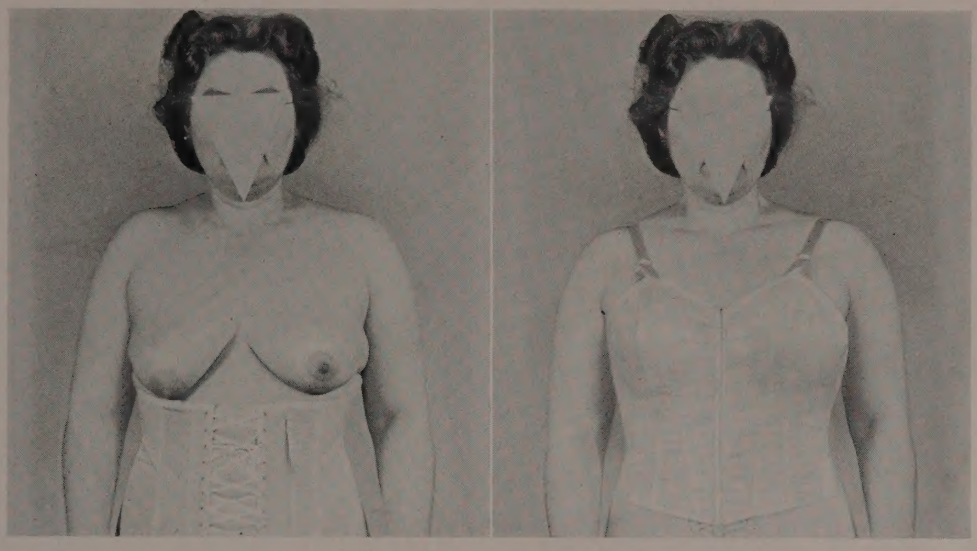
The patient above, age 34, states that her breasts have been ptosed and pendulous since puberty. As a young girl, she was so embarrassed by the condition of her breasts that she constantly wore tight bandeaus which probably helped to break down the breast tissues. The patient was in a sanatorium for tuberculosis of the lungs from 1941 to 1946. She is now symptom free. Had occasional backache in the small of the back for which a Spencer Support with stiff (not rigid) steels was applied January, 1948, to relieve fatigue and improve posture.

The breast support was prescribed as adjunct to her body support for relief of back pain as well as for support of the mobile rib bed. The photographs above indicate the normal positioning of the breasts in the Spencer Breast Support. The wide shoulder straps are so designed to prevent irritation and pressure at the shoulders.

For this patient, as for the other patient with hypertrophic breasts shown below, Spencer Breast Supports hold the breasts in position to encourage improved circulation, relieve undue strain on shoulders, relieve drag on muscles and ligaments of the upper chest, neck and back.



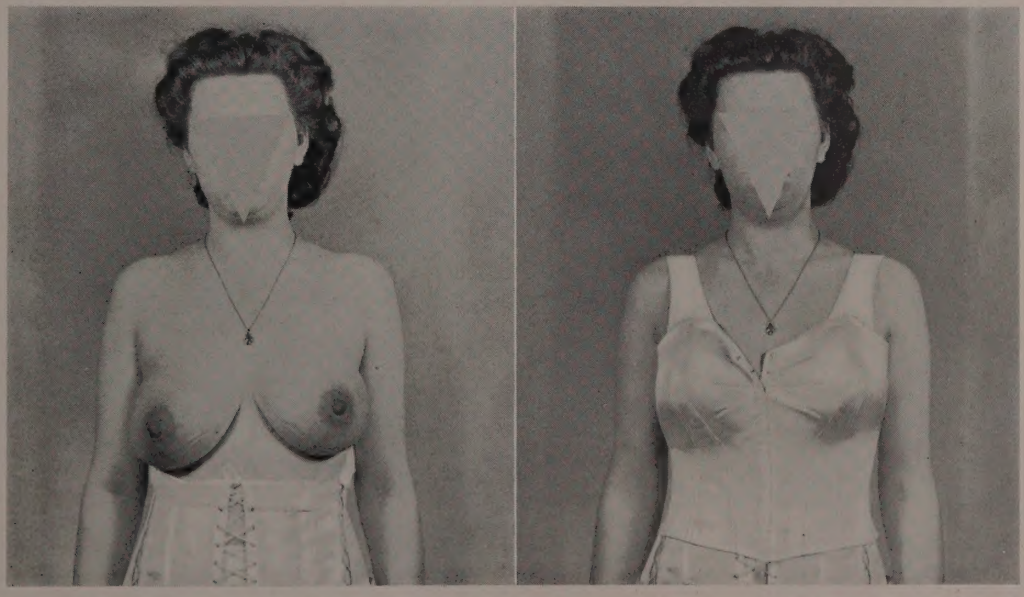
ASYMMETRIC BREASTS



The patient shown above is 43 years of age, para 1. Her breasts have been asymmetrical since childhood and have presented no medical problems. However, she experienced difficulty in obtaining a breast support designed properly to support each breast.

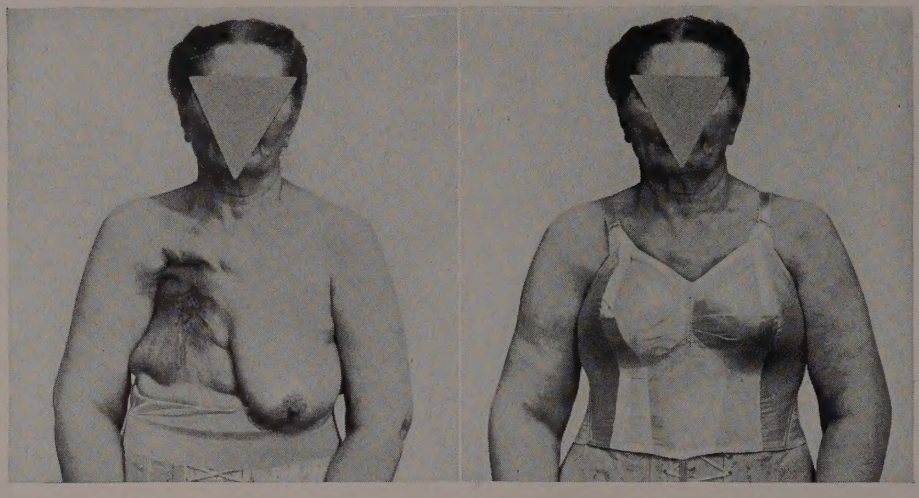
On prescription from the doctor, Spencer designers created for this patient the breast support shown above to make both breasts appear uniform in size, shape, and site of nipples. The patient is pleased with the cosmetic and support benefits of her Spencer.

ENGORGED BREASTS



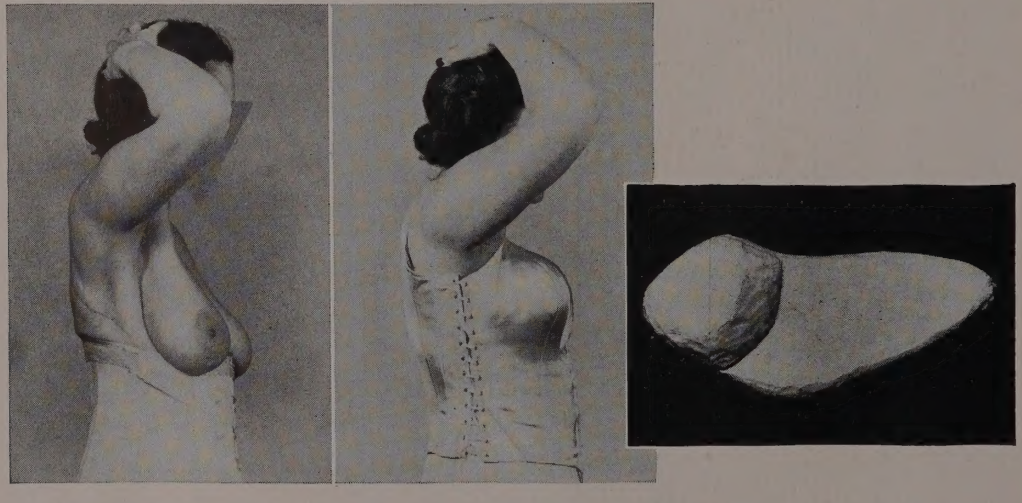
This patient was four months pregnant with her first child at the time these photographs were made. Her breasts became engorged and uncomfortable at approximately 14 weeks pregnancy. Proper breast support was indicated to relieve strain, uplift the breasts in proper position to encourage better circulation through the breasts, prevent drag on the shoulders. The support was designed to open at front as shown above for convenience during the nursing period. Lacers at sides allow for adjustment during both antepartum and postpartum.

FOLLOWING MASTECTOMY



Following mastectomy, the proper breast support and prosthesis are of both psychological and medical importance. A Spencer Breast Support and Spencer Breast Form were prescribed for this patient following radical mastectomy. A prosthetic replacement of the missing breast was made from foam rubber to an exact likeness of the remaining breast. The breast form simulates not only the breast tissue but also the pectoral muscles on the side of the operation. The natural and the artificial breasts are made to match as to size, shape, and site of the nipples. The Spencer Breast Form fits securely into a pocket of the support itself; no pins or other attachments are necessary.

FOLLOWING THORACOPLASTY



This patient, age 43, underwent thoracoplasty, September, 1937, but the cavity reopened March, 1947, and a rework thoracoplasty was performed in June, 1947. A Spencer Thoracoplasty Binder and Foam Rubber Pad (see page 32) were used in obtaining the collapse in the second thoracoplasty. A Spencer Breast Support with Breast Form was prescribed to improve posture, to aid in breathing, to help alleviate symptoms of shortness of breath and to obtain the desired cosmetic result. (The special foam rubber pad used in the breast support is illustrated above.) Note the improvement in posture, the proper positioning of the breasts, the improved line of the chest.

— ANTEPARTUM SUPPORTS —

It has been said that one of the most rigorous demands made upon the human postural mechanism is that of pregnancy.[26] In addition to the extreme postural realignments and disturbances associated with pregnancy, a relaxation of ligaments and a loosening of the pelvic joints have been shown to appear as early as the fourth month.[27, 28] Immediately postpartum, the abdominal and pelvic fascia are markedly relaxed; "and even six weeks postpartum there still exists some degree of relaxation."[29]

Following normal pregnancies, there is no significant permanent change in the postural mechanism because of these disrupting forces;[26] however, much of the gynecologic disability and the long periods of weakness following some pregnancies have been explained on the theory "that the compensation for long-standing faulty body mechanics was broken by the burden of pregnancy, and that once this occurred, the body was unable to regain its compensation and strength."[2] In one series, for example, in a study of 1,000 cases coming to a gynecologic clinic with the complaint of backache, only 18% were due to gynecologic disease and 82% were postural in origin.[1]

One authority[3] found that the best means for safe-guarding posture in pregnancy is through the application of proper support in order to keep the body-weight as near to the line of gravity as possible. During pregnancy, the increasing weight carried in the abdomen "is a potent factor" in producing postural misalignment "and should be met by the use of proper support designed to carry the foetus upward and so lessen the forward carriage of the abdomen."

In one series, antepartum-postpartum supports were successfully employed on the theory that a relaxation of the pelvic ring, and particularly the sacroiliac joint, causes painful symptoms. The purpose of support was to support that ring and also to support the lower back. Symptoms of low-back pain were relieved.[2]

Early ambulation of the postpartum patient has received much attention in the current literature and has become a routine procedure in selected cases by many clinicians. It is frequently suggested that patients wear a support when getting up.[30] The physician will find that proper abdominal support in early ambulation in puerperium or following surgery will exert an important psychological effect. Support increases the patient's confidence in her ability "to stay on her feet" and "move about."

SPENCER ANTEPARTUM-POSTPARTUM SUPPORTS

Spencer Antepartum-Postpartum Supports are individually designed for each patient to provide:

—*comfort* by serving as a "hammock" for the growing uterus

—coordination of support to lower abdomen and back, thus automatically inducing better body mechanics

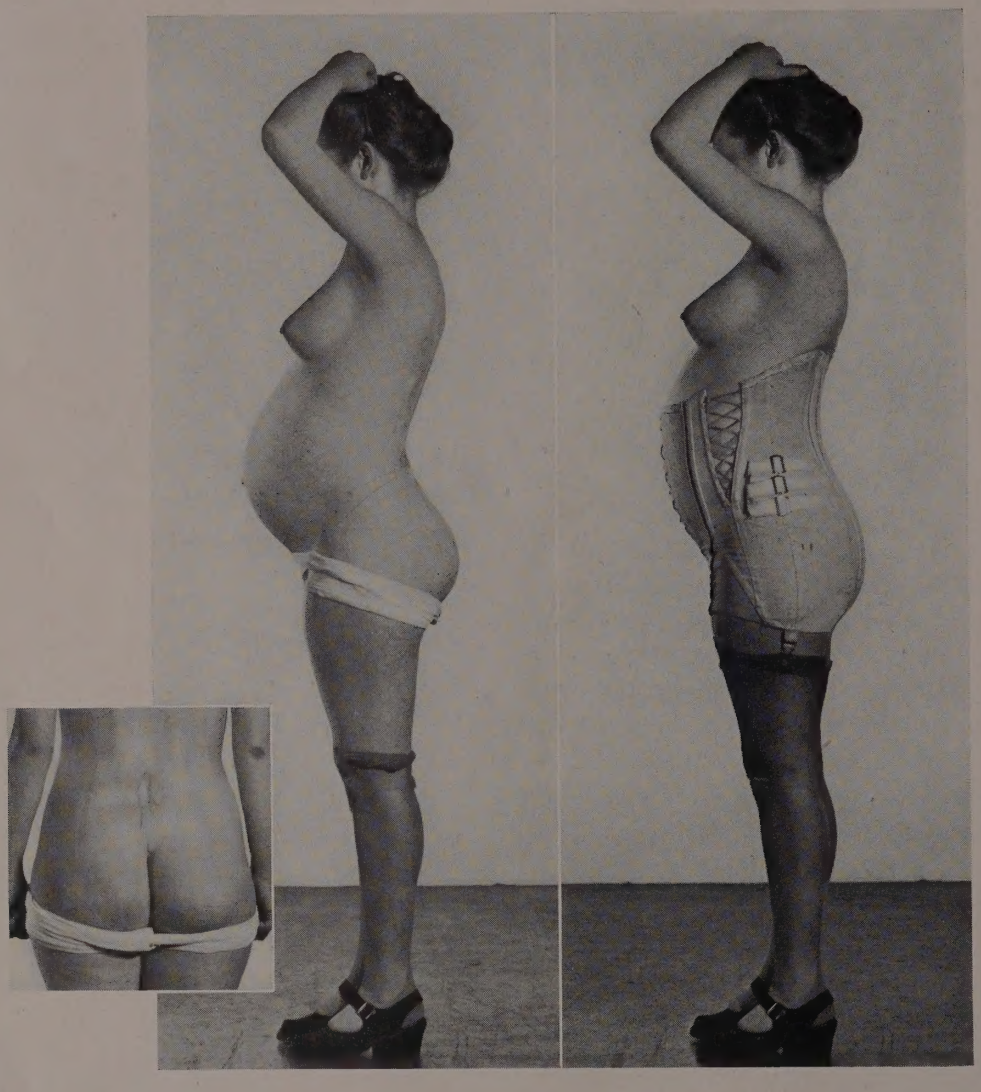
—protection against back disturbances. In patients with a history of weak back, proper support serves as a preventive against strain and undue fatigue

—following parturition, support for the relaxed abdomen, for the muscles and ligaments of the pelvis, and for the pelvic joints

—*economy*, because a Spencer, if applied before the end of the fourth month, can easily be adjusted by the patient for early ambulation and postpartum wear. Thus, the patient is saved the expense of buying a new support following parturition.

The illustrated case abstracts which follow, and the postpartum case abstracts on pages 9, 13, and 16 and the breast case on page 21 present evidence of the medical indications for antepartum and postpartum supports in specific cases.

PRIMIGRAVIDA FOLLOWING SPINAL FUSION



The patient, age 18 years, was six months pregnant with her first child at the time these photographs were made in February, 1948. The patient was presented at the clinic December, 1945, with complaint of pain in the left leg of one year's duration, exaggerated by walking, with some atrophy of the left leg. X-rays revealed spina bifida 3rd, 4th and 5th lumbar vertebrae and upper sacral spine, rudimentary development of the laminae and articular processes in the 5th lumbar segment and grade one spondylolisthesis of L-5 and S-1.

Spinal fusion extending from L-3 to S-3 inclusive was performed July, 1946. Sixteen months following surgery she was again presented at the clinic, three months pregnant. A Spencer Support and Breast Support were prescribed. Four rigid steels were included in the maternity abdominal support because of the necessity for continuing support of the spinal fusion during her pregnancy.

At the time these photographs were taken, the support shown had been worn steadily for three months. Note the lacing adjustment at the side of both the maternity support and the breast support which allows for the increasing development. The patient states she is comfortable as long as she wears the support and is able to do her housework. She adjusts the support in bed before rising in the morning according to instructions and never stands or walks without it.

PRIMIGRAVIDA NORMAL

For the patient pictured above, para 1, in the sixth month of pregnancy, the physician prescribed this lightweight support with side lacers to allow for increasing development. Because the support was applied before the end of the fourth month, it will be easily adjusted for postpartum wear — a saving for the patient.

In uncomplicated pregnancies, it is generally recognized that the physician prescribes the antepartum support which he is assured will provide *comfort* for his patients. For the patient pictured above, para 1, in the eighth month of pregnancy, this belt-type support with slides at sides for adjustment was indicated.

With both supports, the perfect coordination of the support to lower abdomen and back automatically induces better body-balance, better body mechanics. The front panels, with elastic gores at top, serve as a "hammock" for the growing uterus.

SPENCER INDIVIDUAL DESIGNING

There is much evidence to indicate that supports — to be therapeutically effective — should be *prescription* items. In one series of studies, Reynolds, Lovett, and Ober[31] found that one support is NOT as good as another; that a support which does not fit precisely will not help, and may even harm, the patient; and that "most ready-made corsets at best were found to be indifferent."

In another series of studies in the use of abdominal supports in treatment of visceroptosis, Spiesman[12] found that "girdles and corsets should not be taken from 'stock' but should be carefully made to order for each individual wearer."

The conclusion of all these studies is briefly this: a support should be individually designed on prescription for each patient.

Furthermore, a support must fit the body — *not* as it is — but as it *should* be. For example, an orthopedic spinal jacket prescribed to prevent development of further deformity in scoliosis, if it merely "fits" the deformed body as it is, will not help attain or maintain correction; only a support especially designed for, and adjusted to, the body as it *should* be will help correct and maintain the correction of the spinal curve. To our knowledge, Spencer Supports are the only Supports so designed and so boned to meet these requirements.

The Spencer corsetiere is especially trained to save you time and bother. Prescriptions may be given to her directly, or may be mailed, telephoned, or transmitted to her as the busy doctor desires.

Based on the doctor's prescription, the Spencer corsetiere then records complete body descriptions and detailed measurements of the patient. Then, the complete information is forwarded directly to the Spencer Designers in New Haven. Each and every measurement, body description, and instruction of the doctor is used by Spencer Designers in creating the patient's individual support design.

"THE HUMAN BODY CANNOT BE STANDARDIZED"[1]

No two human bodies are exactly alike; therefore, no two Spencer Supports are exactly alike. The physician makes the diagnosis and prescribes the support; the trained corsetiere transmits the complete information to Spencer Designers at New Haven; and within a few days the support is on its way — individually designed according to the medical indications.

When the physician desires, the corsetiere brings the patient to the doctor to have the support checked. Fluoroscope and X-ray are frequently employed, although usually the patient's improvement in posture, body mechanics and comfort-satisfaction are sufficient indication of the support's effectiveness.

"ONE SUPPORT IS *NOT* AS GOOD AS ANOTHER"[31]

Whenever support is indicated — for abdomen, back or breasts — the physician has in Spencer Individual Designing a precise instrument as adjuvant to his treatment. There is no guesswork. Patient cooperation is assured, because Spencer Supports are far more comfortable than old-type braces — and men, women, and children appreciate their cosmetic results. In a Spencer, the patient has the precise degree of support prescribed — without the disadvantages of weight, clumsiness, and discomfort of the old-type braces. Note illustrations below.

Briefly, each Spencer Support design embodies these established physiological and anatomical principles:

—Each is individually designed for each patient's individual needs to support the body — not as it is — but as it should be

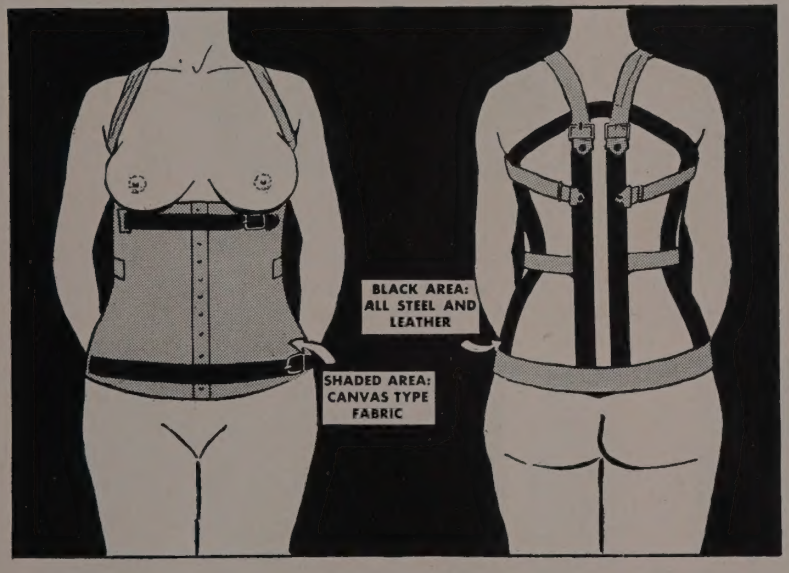
—Each is guaranteed NOT to lose its shape — and thus maintains its supportive qualities

—Made of non-elastic material, Spencer Supports will not yield or slip under strain

—The pull of supporting the abdomen is placed on the pelvis— not on the spine at or above the lumbar region

—Abdominal support is from below, upward and backward, paralleling the natural pull of abdominal muscles

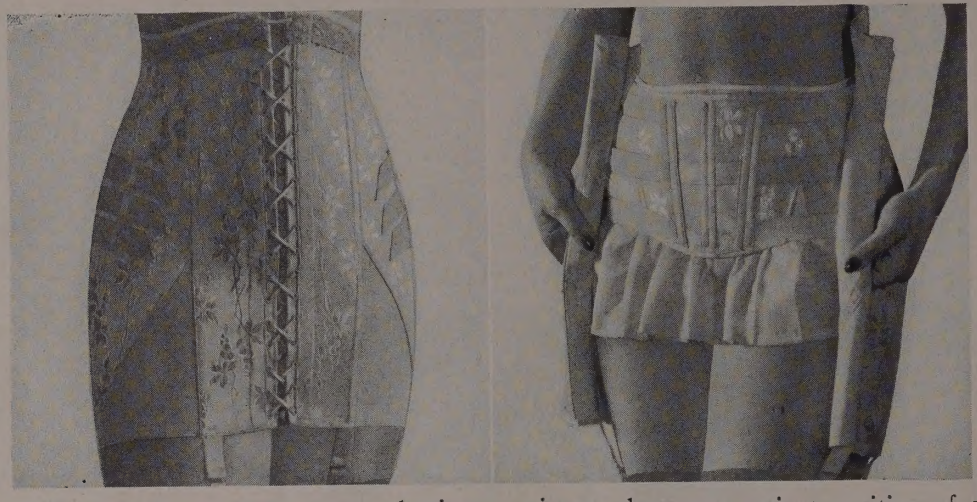
The following illustrated section outlines specific details of various Spencer Supports individually designed for the men and women shown.



The two drawings above represent a typical old-type heavy brace; the two photographs below show a front and back view of a Spencer Support designed for the woman shown to accomplish the same therapeutic aims— with *comfort.*

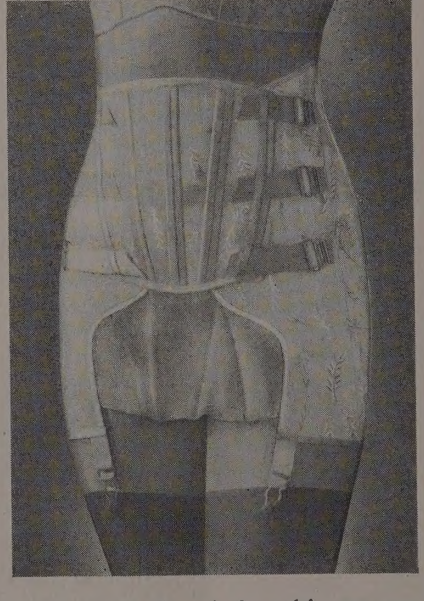
SPENCER SUPPORT DETAILS

Spencer designs vary as widely as the conditions for which they are prescribed. No two are exactly alike because each Spencer is individually created for each patient. The following photographs show Spencers designed to meet a variety of medical indications. Note special features exclusive with Spencer.

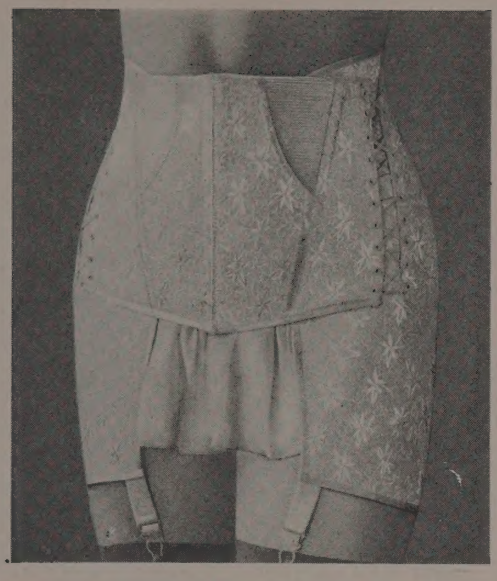


This Spencer Support incorporates a non-elastic inner abdominal supporting section to provide maximum abdominal support. Inner section (shown at right) is instantly adjusted from the outside — without disturbing the corset. (Left picture shows convenient position of adjustment tapes.) Variations of this design — according to each patient's individual needs — render it effective in treatment of ptosis, hernia, movable kidney, and postoperative conditions.

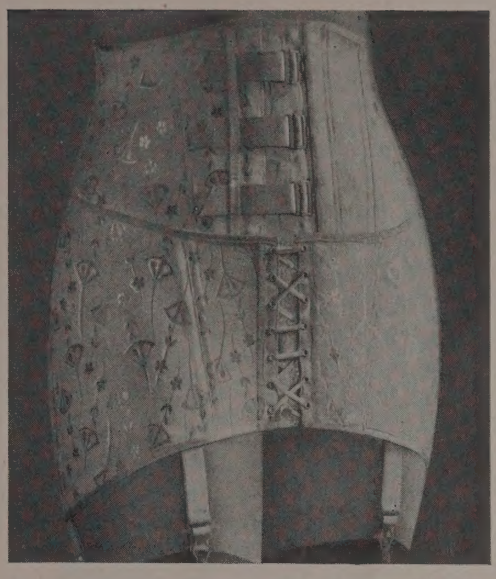
This light, flexible Spencer was designed for a "style-conscious" woman requiring posture improvement, abdominal uplift, and back support. Cosmetic value is enhanced by recessed lacers and other exclusive features. Because Spencer Supports are individually designed, they may vary from flexibility to rigidity, as prescribed. (Cf. pp. 4, 5, 6.)



In the support designed for this woman, note separate front and back sections of non-elastic material. The broad, ample back assures comfortable support. Spencers of similar basic design will aid your treatment of obesity, hernia, postural syndrome, movable kidney, maternity, visceroptosis — and following surgery. (Cf. pp. 13, 24.)

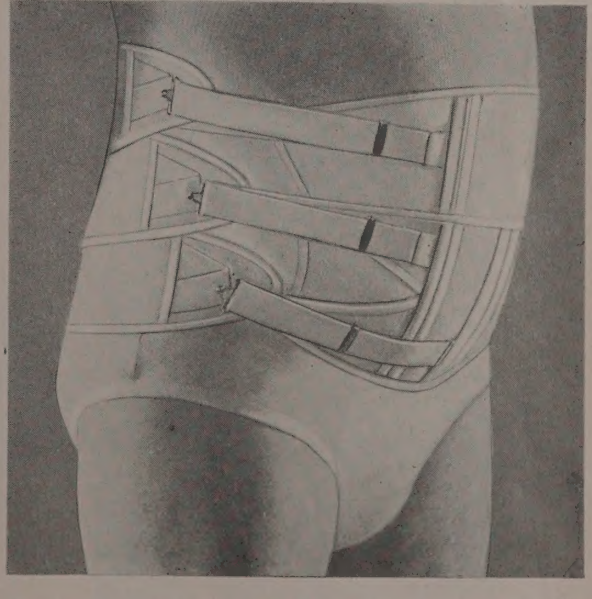


This support was created for a woman requiring flexible yet efficient support. Note design of front section which allows complete freedom of action. Often prescribed for antepartum-postpartum wear by the small woman and the primipara. The abdominal section has elastic gores extending down from the top edge to insure no constriction at upper abdomen.

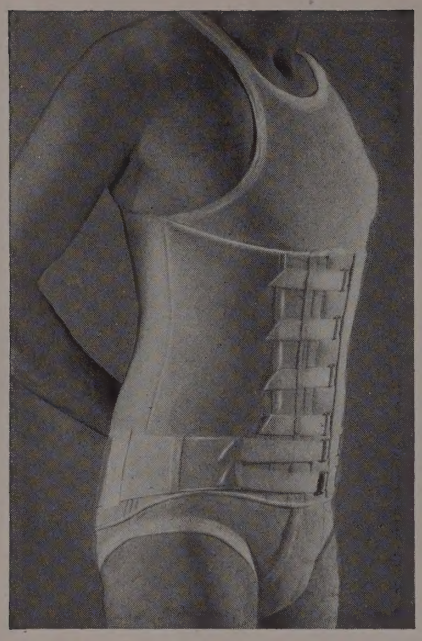


The support shown above was specifically designed to meet the needs of a thin woman with prominent and sensitive hip bones. For patients of this type, an individualized design is essential to provide proper support *with comfort*. Spencer Designers adequately meet the needs of such patients for either abdominal or rigid spinal support, or for both.

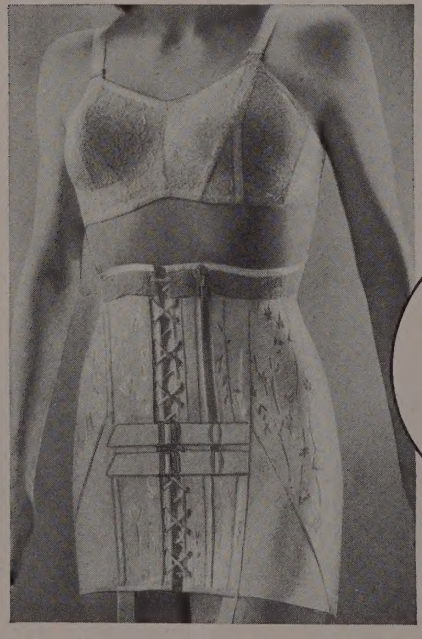
This is an extremely comfortable, wholly-masculine support designed for an active man of average build to provide pelvic control, abdominal uplift, freedom for muscular action. Also serves as a preventive measure against fatigue and muscular strain in active work or sports. No pressure on prominent part of hip bones.

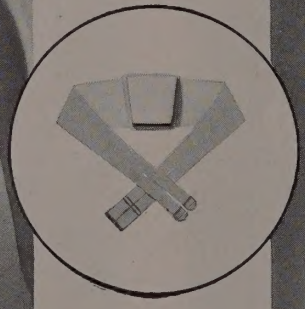


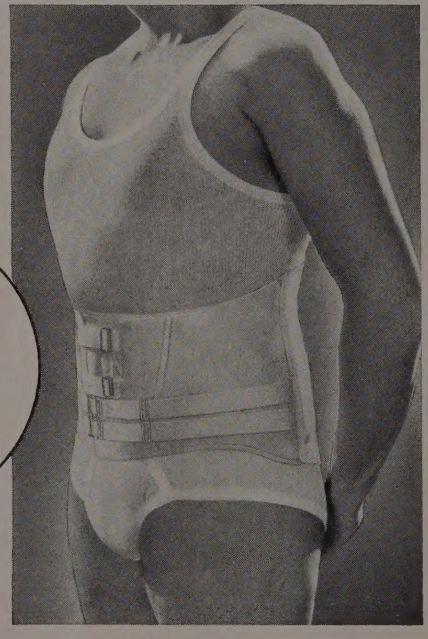
Designed especially for this man of heavy build, this Spencer provides correlated abdominal and back support. Following upper abdominal surgery, the top front section (which allows a telescoping action) safely and comfortably protects the scar. An equally safe and comfortable support for controllable hernia.



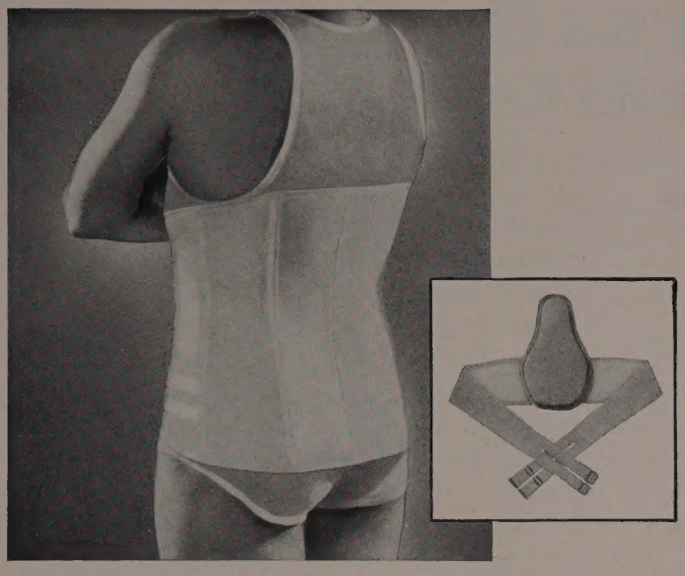
Individually designed for each patient, Spencer Supports for spinal conditions may (as shown above) incorporate an Outside Pelvic Binder for added pelvic stability. Easily removable rigid steels facilitate proper shaping of steels. One, two, or three rigid steels each side of spine, according to the needs of your patients Detachable perineal straps. Front fastening separates to allow easy adjustment by the patient. Designed as high above waist as required. (Cf. pp. 7, 10.)



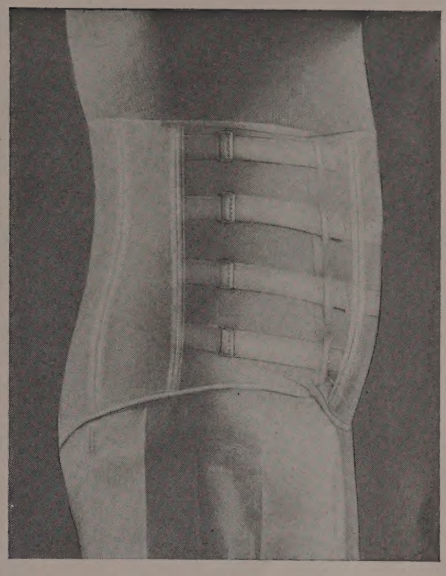




These Spencers, shown on the man and woman for whom they were designed, provide sacroiliac support of maximum efficiency. Note the pelvic binder with sacroiliac pad attached at back center (see inset). Made of strong non-elastic material, it encircles the pelvis, drawing the hip bones together against the sacrum, thus immobilizing the sacroiliac joints. Easily adjusted from outside the support to degree of pelvic control required. Patients appreciate the comfort provided.



In lumbosacral conditions, the Inside Pelvic Binder (see inset) and the high back of this Spencer combine to restrict motion of the lower vertebrae. Binder easily adjusted from front of the support to precise degree of control required.



Spencer created this belt-type design with separate front section of non-elastic webbing. Instantly adjustable, masculine in appearance. Will improve posture and body mechanics; helps prevent fatigue and muscular strain. (Cf. p. 15.)

A Spencer Abdominal Spring Pad* (see inset) is shown incorporated in a Spencer designed for this man. The thin, light pad serves as a *resilient visceral elevator*. Prescribed in treatment of visceroptosis, paralyzed abdominal muscles, and postural hypotension. (Cf. pp. 7, 10, 14, 16, 17, 32.)

**Patented*

This support with rigid steels was individually designed with back lacer—a feature sometimes prescribed by physicians for various back conditions. The back lacer allows for additional specific daily adjustment of the support. May also be prescribed with an Outside Pelvic Binder.

SPENCER EXPERIMENTATION AND RESEARCH

Spencer carries on a continuing program of experimentation and research in all fields of support application. The following developments resulting from this program during the past few years indicate the diversified nature of our research activities:

— the G-suit (anti-blackout unit for fighter pilots) developed by Spencer in cooperation with civilian and military authorities during the war;

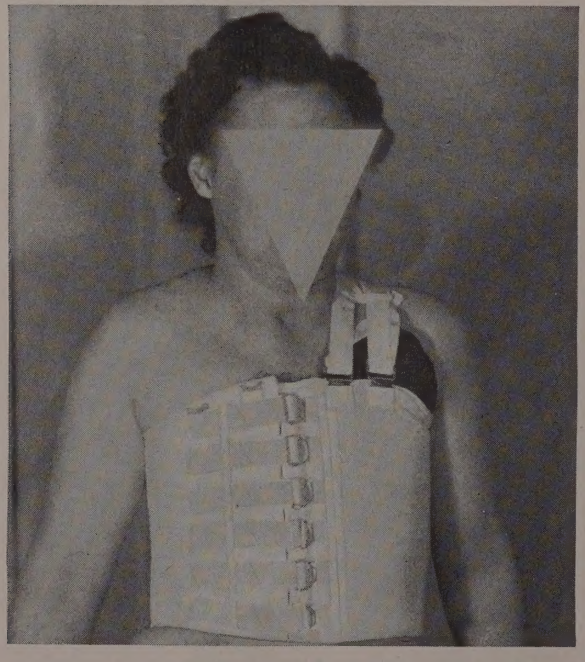
— a Spencer Pneumoperitoneum Binder, a review of which appeared in the April, 1947, issue of The American Review of Tuberculosis;[38]

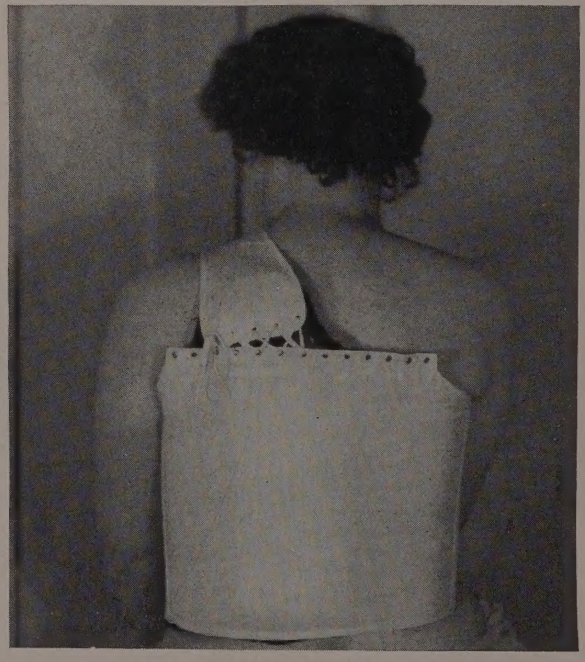
— a Spencer Thoracoplasty Binder, (pictured below), now in use by thoracic surgeons to help prevent paradoxical movement of the chest wall postoperatively and prevent the development of noticeable deformity.

As a leading commercial company serving the medical profession, Spencer channels its best talents and facilities into the work of experimentation and research. Studies are being made at the present time not only in hospitals and medical centers in the United States, but in Canada and England as well.

As an example, in one well-known eastern clinic a series of studies have been made over a period of more than two years on the use of support in treatment of postural hypotension. The results indicate that the use of a Spencer Support with a Spencer Abdominal Spring Pad provides definite therapeutic benefits in the treatment of this condition.

Through such efforts, we are helping to obtain clinical evidence of the indications for supports in an ever increasing number of medical specialties. Periodic reports will be made available to the medical profession, after the physicians with whom the research is being conducted approve the release of information.





Front and Back Views of the Spencer Thoracoplasty Binder. The photographs of this patient were made under medical supervision. Thoracoplasty was performed in October, 1945. A Spencer Thoracoplasty Binder with foam rubber pad as shown above was applied as soon as the incision had healed and was worn approximately 6 months to help secure better collapse. There is no noticeable deformity.

SPENCER SUPPORT APPLICATIONS

CONDITIONS FOR WHICH THE MEDICAL PROFESSION PRESCRIBES SPENCER INDIVIDUAL DESIGNING

ABDOMINAL CONDITIONS

ANTEPARTUM
ENTEROPTOSIS WITH SYMPTOMS
NEPHROPTOSIS WITH SYMPTOMS
OBESITY
POLIOMYELITIS, CONDITIONS FOLLOWING
POSTPARTUM
POSTURAL SYNDROME
WEAKENED ABDOMINAL MUSCLES

BACK CONDITIONS

FRACTURED VERTEBRAE
KYPHOSIS
LORDOSIS
LUMBOSACRAL SPRAIN
OSTEOPOROSIS
POLIOMYELITIS, CONDITIONS FOLLOWING
PROTRUDED INTERVERTEBRAL DISC
SACROILIAC SPRAIN
SCOLIOSIS
SPINAL WEAKNESS
SPONDYLARTHRITIS
SPONDYLOLISTHESIS
TUBERCULOSIS OF THE SPINE

BREAST CONDITIONS

ANTEPARTUM
ATROPHY
HYPERTROPHY
MASTITIS
POSTPARTUM
PROLAPSE
STASIS

HERNIA

EPIGASTRIC
FEMORAL (CONTROLLABLE)
INGUINAL (CONTROLLABLE)
UMBILICAL
VENTRAL

POSTOPERATIVE

APPENDECTOMY
CAESAREAN SECTION
CHOLECYSTECTOMY
COLOSTOMY
HERNIOTOMY
HYSTERECTOMY
MASTECTOMY
NEPHRECTOMY
NEPHROPEXY
POSTURAL HYPOTENSION
SPINAL OPERATION

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